COMMUNICATION FROM THE COMMISSION

on the enhanced safety of passenger ships in the Community

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on specific stability requirements for ro-ro passenger ships

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(presented by the Commission)
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1. GENERAL INTRODUCTION

In this Communication, the Commission proposes a set of measures aiming at improving the existing Community legislation on the safety of passenger ships, in line with policy objectives outlined in the Commission’s White Paper on Transport Policy. 1 The measures proposed in the present communication include a proposal on specific stability requirements for ro-ro passenger ferries and a revision of Directive 98/18/EC on safety rules and standards for passenger ships. It also presents the Commission’s line of thinking in relation to the liability regime for carriers of passengers by sea and the on-going revision of the IMO Athens Convention relating to the Carriage of Passengers and their Luggage by Sea, 1974.

In the 1993 Communication on a common policy on safe seas, 2 the Commission highlighted the need for a number of measures to improve and to harmonise the safety regime which applies to passenger vessels. A series of tragic accidents involving passenger ships in EU waters further emphasised the need to take measures in this area. 3 Within a time span of only a few years the Community undertook a major reinforcement of its legislation on safety of passenger vessels. In particular, four new Community instruments were introduced in order to ensure equal safety standards on all passenger ships in the Community 4, particular requirements on ro-ro ferry services 5, better information about passengers travelling on board passenger ships 6 and an early implementation of the ISM Code on passenger ships 7.

The process of implementing these measures and evaluating their effectiveness showed certain shortcomings and confirmed that the aim of achieving harmonised rules for all passenger ships entering or leaving an EU port has not yet been fully achieved. A process of evaluating the passenger safety regime with a view to proposing improvements had already started, when the latest European tragedy involving a passengers ferry, the Express Samina accident in Greece, underlined the need for Member States and the Commission to increase their efforts in order to avoid such accidents from happening again.

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Furthermore, the developments in the construction of passenger vessels, more particularly their increasing size (up to 150,000 gross tons) and passengers capacity (up to 5,000 passengers and crew), is being closely followed by the Commission. In fact a number of questions have been raised regarding the adequacy of the presently applicable construction and operational safety standards for very large passenger vessels. IMO is now analysing this subject at technical level and in the light of this work and subsequent analysis at Community level, the Commission will propose further initiatives in the area of safety and security of passenger vessels during the second half of 2002.

2. SPECIFIC STABILITY REQUIREMENTS FOR RO-RO PASSENGER VESSELS OPERATING TO OR FROM EU PORTS

2.1. Background

The stability of passenger vessels following a collision is of key importance for the safety of ro-ro passenger ships. The longer a ship remains afloat in case of serious damage, the more efficient will the evacuation of passengers and crew and search and rescue operations be. This consideration becomes even more important in view of the escalating size of ro-ro ships serving Community ports and the increasing number of passengers and crew they carry. Indubitably, one of the major dangers for a ro-ro ship with an enclosed ro-ro deck is the effect of a build-up of significant amount of water on that deck.

At international level, the principal standard regulating the stability of ro-ro passenger vessels is the so-called SOLAS 90 standards, which implicitly address the effect of water entering the ro-ro deck in a moderate sea state with significant wave height in the order of 1.5 metres. These standards are also applied to domestic EU trades, by means of Directive 98/18/EC.

In February 1996, in the aftermath of the Estonia disaster in the Baltic Sea, eight European States (Denmark, Finland, Germany, Ireland, Netherlands, Norway, Sweden and the United Kingdom) agreed, through a special agreement, the “Stockholm Agreement”, to introduce specific stability requirements for ro-ro passenger ships. The key idea of the Stockholm Agreement is that a ship should be designed to resist capsize even when a certain quantity of water has made its way to the ro-ro deck. The technical requirements of the Agreement go beyond those that had been established in the SOLAS 90 standards as they increase the survivability of the vessels in more severe sea states, by upgrading the SOLAS requirements to take into account also the effect of water which could accumulate on the ro-ro deck following damage.

The stability requirements are applicable to all ro-ro passenger ships, irrespective of flag, operating on regular scheduled international voyages carrying passengers between designated ports to or from designated ports in the area covered by it. In addition, all Parties to the Stockholm Agreement have currently extended its application to equivalent domestic trades.

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8 Furthermore, Directive 1999/35/CE on a system of mandatory surveys for the safe operation of regular ro-ro ferry and high speed passenger crafts provides in its article 4.1.e that ro-ro ferries shall fulfil the specific stability requirements adopted at regional level, when operating in the region covered by such regional rules.

9 Agreement concerning specific stability requirements for ro-ro passenger ships undertaking regular scheduled international voyages between or to or from designated ports in North West Europe and the Baltic Sea, Annexed to IMO circular letter N° 1891 of 29 April 1996.
2.2. The Commission’s position

At the conclusion of the Diplomatic Conference at which the Stockholm Agreement was adopted, the Commission issued a statement, taking note of the Agreement concluded and expressing the opinion that the same level of safety should be ensured for all ro-ro passenger ships operating in similar conditions. Noting that the Agreement is not applicable in other parts of the Community, the Commission announced its intention to examine the prevailing local conditions, under which ro-ro passenger ferries sail in all European waters and examine the effects of the application of the Stockholm Agreement in the region covered by it. The statement concluded that in the light of this examination the Commission would take a decision with regard to the need for further initiatives in this area.

Following its commitment, the Commission has examined the extent and effect of the application of the Stockholm Agreement concerning specific stability requirements for ro-ro passenger ships and the suitability of extending its scope of application to European waters not covered by it. This analysis was finalised in 2001 and the main findings, which are based on inputs from various sources including a specific study contracted by the Commission, may be summarised as follows:

- Wave heights in the Mediterranean are comparable to those of the Baltic Sea, while wave heights in the Eastern Atlantic (the Atlantic coast of France, Spain and Portugal) are comparable to those of the North Sea and Channel area. Factors relating to visibility and water temperature are generally more favourable in the Mediterranean than in the area covered by the Stockholm Agreement, but on the other hand waves tend to be steeper in the Mediterranean. In conclusion, the wave heights in the South European waters are comparable to those in the North.

- The implementation of the Stockholm Agreement did not cause major problems for the industry or the contracting governments involved. A significant number of the ships concerned did not need any upgrade at all. 69% of the totality of 140 vessels concerned were upgraded for less than € 1 million. The estimated total cost of upgrade was around € 85 million, but the main part of those costs related to the accelerated compliance with SOLAS 90 standards, rather than just to compliance with the Stockholm Agreement as such.

- The modification cost of the Southern European fleet for compliance with the provisions of the Stockholm Agreement would be approximately the same as those associated with compliance with the SOLAS 90 requirements. Since full compliance with SOLAS Regulations in any event is due to take place in the coming years, on the basis of the IMO timetable (international trades) and Directive 98/18/CE (domestic EU trades), the industry should already have foreseen investments in upgrading the vessels concerned.

- The introduction of the additional requirements of the Stockholm Agreement for the South European vessels will offer uniformity of stability requirements throughout the EU and thus increased safety level in the Community.

In light of the above, the Commission considers that the division of north/south as regards stability requirements for ro-ro vessels in damaged condition (Stockholm Agreement standards in the North and SOLAS 90 standards in the South) is unjustified, as regards both safety parameters and techno-economic reasons. For these reasons the Commission proposes a Directive implementing the specific stability requirements of the Stockholm Agreement to all ro-ro passenger ships operating on international trades in the EU. This initiative has the
advantage of providing increased safety of passenger ships in the Community and creating uniformity in the regulation of passenger vessels in international trades. The proposal is attached in Annex I to this Communication.

Taking into account that operating conditions for ro-ro passenger ships in domestic voyages in the Member States are often similar to those in international voyages, the Commission also proposes to revise Council Directive 98/18/EC in order to introduce the same or equivalent stability standards for ro-ro ships operating in domestic voyages.

3. **REVISION OF COUNCIL DIRECTIVE 98/18/EC OF 17 MARCH 1998 ON SAFETY RULES AND STANDARDS FOR PASSENGER SHIPS**

3.1. **Introduction**

Although Council Directive 98/18/EC on Safety Rules and Standards for Passenger ships\(^\text{10}\) is a relatively recent Directive, a number of problems have already emerged in relation to its implementation. The Commission therefore considers it appropriate to propose certain amendments to it. The proposed revision would mainly concentrate on a strengthening of certain key parts of the Directive and simplification of some of its provisions. The proposal is attached in Annex 2 to this Communication and includes the following amendments.

3.2. **Publication of the lists of sea areas (Article 4.2)**

Article 4 of Directive 98/18/EC provides for the definition of sea areas in different categories for the purpose of limiting the scope of traffic for different categories of vessels. Paragraph 2 of the article lays down a procedure for notification by Member States of such sea areas to the Commission. Once the sea areas have been approved by the Commission, assisted by the Committee, they shall be published in the Official Journal of the European Communities.

Experience with the implementation of this article has pointed at a number of problems. Part of these problems have been of a legal nature, in that Member States have interpreted the meaning of the article in very different ways. In addition, there have been serious delays in the notification of sea areas. At a more technical level, the format chosen by some Member States for presenting the list of sea areas has been unsuitable for the purpose of publication in the Official Journal. Given that that the classification of sea areas is a crucial aspect of the effective implementation of the Directive as a whole, these shortcomings need to be overcome.

The Commission therefore proposes a new Internet-based procedure for the notification and publication of sea areas, which would make the procedure more clear and simple while at the same time bringing more transparency into the system, as the information would be more easily available to the parties concerned.

3.3. **Derogation for Greece**

Article 6.3.g includes a derogation for existing Class A or Class B vessels operating in Greece. The derogation gives these vessels an opportunity to operate without complying with the safety requirements of the Directive until they reach the age of 35 years, whilst the age of compliance with this Directive from 2007 would be considerably lower for other vessels.

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\(^{10}\) OJ L144, 15.5.1998, p. 1.
For the purpose of this extension, Greece was required to notify the Commission of the details of each such ship, and those details were to be published in the Official Journal. This list was published with a Commission decision of 24.6.1999\(^\text{11}\) and revealed that only a very limited number of ships were concerned by the derogation. In addition to the limited practical relevance of the derogation, its political significance has been greatly reduced. For these reasons, the Commission proposes to delete the derogation clause for passenger vessels operating in Greek waters as from 1.1.2005.

### 3.4. High Speed Craft Code 2000

Directive 98/18/EC currently applies the High Speed Craft (HSC) Code\(^\text{12}\) in full to all high speed craft operating on domestic services. Since the Directive was adopted, however, an additional High Speed Code has been elaborated for new ships. This new HSC 2000 code was adopted on 5 December 2000 and applies to all new vessels whose keels are laid or which are at a similar stage of construction on or after 1 July 2002.\(^\text{13}\) The HSC 2000 does not replace the previous code older high speed vessels, but applies to new vessels only.

In order to keep up with these developments at international level, the Commission proposes amend Directive 98/18/EC, to enable the HSC Code 2000 to be made applicable through amendments to the Directive developed through the Comitology procedure. This requires an amendment of article 8.a of the Directive. This would ensure the same flexible method for amendments of the Directive in relation to developments international legislation for both passenger ships and high speed craft code, which is currently not the case.

### 3.5. Stability requirements and phasing out for Ro-Ro Passenger Vessels

The first legislative proposal of this communication on passenger ship safety introduces specific stability requirements on ro-ro passenger ships operating on international routes to/from EU ports by 1 October 2010 at the latest. To ensure consistent levels of safety between international and domestic trade, the amendments to Directive 98/18/EC also include a proposal for applying these or equivalent stability requirements to ro-ro ships operating domestically.

To encourage compliance with the stability requirements for ro-ro passenger ships operating in different types of sea areas under the same sea conditions, the Commission proposes that the specific stability requirements shall apply to all new ro-ro passenger ships of classes A, B and C as from 1 October 2004. For new ro-ro passenger ships of class D, the application of the specific stability requirements is not justified, due to the restricted operational conditions applying to these ships. However, taking into account the difficulties that can be encountered in upgrading existing vessels of classes A and B, the Commission proposes to introduce as an alternative the possibility of phasing out such vessels at the age of 30 years if the specific stability requirements cannot be complied with. The same phasing out possibility shall apply to existing ro-ro passenger ships of classes C and D, unless they fully comply with the stability requirements set out in paragraph II-1/B/8 of Annex I of the Directive. This means full compliance of these vessels with the SOLAS 90 stability requirements, an obligation from which they are presently exempted.


The requirements/options for ro-ro vessels trading in the 4 types of domestic sea areas (classes A, B, C and D) are presented in a summarised way in the following table:

<table>
<thead>
<tr>
<th>Class of ship</th>
<th>Stability requirements</th>
<th>Transitional measures for existing ships</th>
</tr>
</thead>
<tbody>
<tr>
<td>New class A, Class B and class C ro-ro ships, built on or after 1 October 2004.</td>
<td>Same rules as for ships trading in international voyages to apply. Introduction of the specific stability requirements (Stockholm Agreement).</td>
<td></td>
</tr>
<tr>
<td>New class D ro-ro ships.</td>
<td>SOLAS 90 stability requirements apply (Annex I/II-1/B/8).</td>
<td></td>
</tr>
<tr>
<td>Existing class A and class B ro-ro ships, built prior to 1 October 2004.</td>
<td>Same rules as for ships trading in international voyages to apply. Specific stability requirements (Stockholm Agreement) introduced by 1 October 2010.</td>
<td>In case of non compliance by 1/10/2010, phasing out on the date ro-ro ships reach the age of 30 years. However, final deadline for phasing out: 1 January 2015.</td>
</tr>
<tr>
<td>Existing class C and class D ro-ro ships, built prior to 1 October 2004.</td>
<td>SOLAS 90 stability requirements (Annex I/II-1/B/8) introduced by 1 October 2010.</td>
<td>In case of non compliance by 1/10/2010, phasing out on the date ro-ro ships reach the age of 30 years. However, final deadline for phasing out: 1 January 2015.</td>
</tr>
</tbody>
</table>

### 3.6. Safety requirements for passengers with reduced mobility

Demographic change of the population of the European Union is contributing to an ageing population. A larger proportion of society, and hence a larger potential transport service consumer group, will in the future have some form of reduced mobility, due to old age or a disability. Making passenger vessels operating on domestic services safe and accessible for people with reduced mobility (PRM\(^\text{14}\)) is therefore increasingly relevant, as the number of persons directly benefiting from increased accessibility can be up to 30% of the population. Designing passengers ships for all passengers, including those with reduced mobility, furthermore means making the ship safer and more user-friendly for all passengers.

The European Commission’s White Paper titled “European Transport Policy for 2010: time to decide” states that: “Successful intermodality depends also on easy access to all transport modes. In this context, it is important that account be taken of the difficulties encountered by people with reduced mobility who use public transport, for whom changing to one mode to

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\(^{14}\) Definition of a person with reduced mobility in Directive 2002/xx/EC relating to “special provisions for vehicles used for the carriage of passengers comprising more than eight seats in addition to the driver’s seat, amending Directives 70/156/EEC and 97/27/EC” reads: “Passenger with reduced mobility” means all people who have a difficulty when using public transport, such as disabled people (including people with sensory and intellectual impairments, and wheelchair users), people with limb impairments, people of small stature, people with heavy luggage, elderly people, pregnant women, people with shopping trolleys, and people with children (including children seated in push chairs).
another can sometimes be a real obstacle”\textsuperscript{15}. Article 13 of the EC Treaty furthermore calls for measures to combat discrimination on among other grounds, disability and age, and other recent Community legislation and Commission proposals\textsuperscript{16} include access for people with reduced mobility as a requirement for operation.

Examples of barriers on passenger ships facing people with reduced mobility are: physical access when boarding, moving to and from car deck, access to on board facilities, lack of access to information about safety (escape routes, emergency announcements) and access to accommodation areas.

The Commission proposes the insertion of a new article in the Directive regarding safety requirements for passengers with reduced mobility, and an additional annex including guidelines for this purpose. These safety requirements cover all classes of vessels, both new and existing, although the solutions will vary depending on the size and type of the ship. The development of specific technical requirements should be left to the Member States, in accordance with the principle of subsidiarity. Consultation by Member States of organisations representing people with reduced mobility is crucial. Although it is considered that taking into account these safety guidelines at the design stage is thought to include no significant additional costs, it is recognised in the proposed new article that adaptations of existing vessels may be costly, and a safeguard against adaptations that impose an unreasonable economic burden on the shipowner is therefore built into the Directive. In this context, the Commission also proposes that it should be possible to amend Annex II and III with the assistance of the Committee.

4. LIABILITY OF CARRIERS OF PASSENGERS BY SEA

4.1. Introduction

The liability for damage caused to passengers carried by sea is not subject to fully harmonised rules, neither at international nor European level. There is no Community legislation in this field and the protection of passengers varies between Member States, depending on what international conventions, and which amendments to them, have been ratified by the State in which the claim is settled. Consequently, maximum compensation amounts for death or personal injury to a passenger show great variations within EU Member States. In addition, none of the applicable conventions or protocols stipulates a strict liability for the carrier or an obligation for carriers to take out insurance to meet claims from passengers.

Given the importance of adequate and uniform protection of passengers carried by sea, the Commission considers that the present state of affairs is untenable. The need for a passenger liability regime in shipping is accentuated by the fact that the size and passenger carrying capacity of ferries and cruise liners continues to increase and that there are ever-more operators in this market, which continues to grow as people increasingly have more time and money to spend on travel and holidays. A uniform and adequate passenger liability regime should therefore form an integral part of the Community legal framework for passenger ships. This is all the more so as the Community, through Regulation 2027/97/EC on air carrier


liability in case of accidents, has already established a comprehensive EU-wide passenger liability regime for air carriers.

This section puts forward the Commission’s views on the key elements of a workable maritime passenger liability regime. Such a regime shall, in the view of the Commission be put in place within the EU within a near future. The introduction of a regime at EU-level, coincides with the revision on the international rules on the liability for carriers of passengers by sea at international level. It is considered that if the international regime satisfies, or at least does not prevent the application of all the key elements outlined below, it is preferable to implement the EU-regime within the context of the international rules. Should, however, the international regime fail to meet those expectations or be significantly delayed, the Commission is of the opinion that the importance of the matter requires specific Community-wide initiatives and will put forward a proposal to that effect before the end of this year.

4.2. Background

4.2.1. Shipping

The principal international convention governing the liability of carriers of passengers by sea is the Athens Convention relating to the Carriage of Passengers and their Luggage by Sea, 1974 (hereinafter the Athens Convention), which establishes a regime of liability for damage suffered by passengers on seagoing vessels. The Athens Convention establishes a fault-based liability regime, in which the carrier can limit his liability unless he acted “with intent to cause such damage, or recklessly and with knowledge that such damage would probably result”. This limit of liability is set at 46,666 Special Drawing Rights (SDR) (about € 67,000) per passenger in case of death or personal injury. As far as loss of or damage to luggage is concerned, the carrier’s limit of liability varies, depending on the nature and the location of the luggage. The Athens Convention entered into force in 1987 and is now ratified, or acceded to, by 26 States, including six EU Member States, representing one third of the world’s seagoing tonnage. The main reason for the relatively low number of ratification among EU Member States is that the convention limits are considered to be too low. Efforts to raise the limits were made in the late 1980’s, but the resulting 1990 Protocol is not widely ratified and has not entered into force.

In view of the generally unsatisfactory situation as regards the compensation of passengers on seagoing vessels, the Legal Committee of the International Maritime Organization (IMO) decided to carry out a review of the Athens Convention. One of the underlying purposes of the revision was to ensure at least a similar level of protection for passengers as that provided by the revised air passenger liability regime, while taking into account the specific operational and insurance conditions of the shipping industry. The Commission participates in this work of the IMO, the outcome of which is more fully presented in Section 4.4 below.

There is currently no Community legislation on the liability of carriers of passengers by sea. When considering such a regime, the corresponding legislation in the aviation sector therefore serves as a useful reference point.

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17 The EU Member States which have ratified the Athens Convention are: Belgium, Greece, Ireland, Luxembourg, Spain and the United Kingdom. In addition, the Nordic States apply the substance of the convention, but with the limits of its 1990 Protocol.
4.2.2. Aviation

At Community level Regulation 2027/97/EC establishes a liability regime for air carriers in the event of accidents. It only applies to carriers established in the Community and provides for unlimited liability of the carrier in case of death or injury of passengers, which is divided into two tiers. For claims totalling under 100.000 Special Drawing Rights (around € 143.000) per passenger, the carrier is prevented from using the legal defence that he took all possible measures to avoid the accident. Regulation 2027/97 further specifies that carriers shall be insured up to the limits of the strict liability and beyond that up to a ‘reasonable level’. The Regulation does not cover damage to luggage.

At international level a uniform set of rules has been agreed through the adoption of the 1999 Montreal Convention for the Unification of Certain Rules for International Carriage by Air (the Montreal Convention). This convention, which is not yet in force, is similar to the existing Community regime as regards claims for death and injury for passengers, but is broader in scope as it includes, among other things, provisions on liability for damage to luggage and cargo. The Montreal Convention also includes an obligation for States Parties to require carriers to maintain “adequate insurance covering their liability under this Convention”.

Efforts are currently underway to align the Community regime to the Montreal Convention, by including claims for loss of or damage to luggage and delay into its scope and to pave the way for the Community and the Member States jointly to become parties to the Montreal Convention. According to the conclusions reached by the Council, the simultaneous ratification of the Convention by the Community and the Member States shall take place before the end of 2002.

4.3. The Commission’s view

4.3.1. Introduction

The Commission is of the firm opinion that the liability regime which applies for passengers carried by sea needs to be updated and strengthened in favour of passengers. Many features of the Athens Convention as it stands are outdated and fail to meet the expectations of citizens travelling on passenger ships in Community waters and beyond. The adequate protection of passengers is particularly important as regards compensation for damage relating to death or personal injury, which is also the focus of Regulation 2027/97/EC on air carriers’ liability.

It has to be acknowledged, however, that there are a number of relevant differences between the two modes of transport, which imply different solutions for the respective liability regimes. Those differences include the way in which passengers spend their time during the carriage, the way in which carriers are organised and arrange their insurance and the way the two industries themselves view matters related to liability. Because of these and other divergences, it would not necessarily be practicable or even desirable to implement an identical passenger liability system for the two modes of transport. For example, the large and ever-increasing number of passenger ship carriers, not all of whom are well-known, calls for very specific insurance requirements in the maritime sector. Similarly, coverage of all carriers, irrespective of the flag of the vessel, is crucial if the maritime passenger liability regime is to be effective.

In order to ensure adequate protection of passengers, certain key principles have to be incorporated in a Community maritime passenger liability regime. At least the six features
outlined below should, in the view of the Commission, form part of an EU-wide maritime passenger liability regime.

4.3.2. **Strict liability**

Strict liability is aimed at improving the position of claimants, as the liability is not dependent on an act of fault or negligence by the carrier. In contrast to the liability regime that applies in the aviation sector, none of the applicable maritime passenger liability conventions provides for a liability of the carrier for death or personal injury which is totally independent of fault on his part.\(^{18}\) Frequently, this difference between the modes of transport has been justified by reference to the contrasts between the roles of a passenger on board a passenger ship or a cruise ship and an air passenger. While the latter normally is expected to remain seated for the main part of the voyage, the passenger on board a ship, in particular a cruise ship, is considerably more mobile and active and has more time and opportunities to engage in acts of contributory negligence. A cruise ship passenger may often be more comparable to a customer in a restaurant, discotheque, hairdresser or spa. Since none of those service providers is normally subject to strict liability, it has been considered unfair to place such a burden on the carrier of passengers by sea. In support of this view, it has been stated that some 90 per cent of the passenger claims in the marine sector are claims by one or a few passengers, while claims in the aviation sector, when they arise, tend to involve all or most passengers on board the aircraft.

Nevertheless, that line of reasoning fails to take into account passenger vessel accidents that origin in causes which are beyond the control of the passengers on board. Such incidents, including shipwreck, grounding, collision, fire etc. are fully comparable to typical accidents in the aviation sector and should be regulated accordingly. For this reason, the Commission, like the present draft text of the new Protocol to the Athens Convention, considers that a distinction should be made between two categories of claims. Damage which is caused by the operation of the ship and where the possibility of passengers to control the events typically is very limited (‘shipping incidents’) should be subject to a strict liability regime while a negligence-based liability system may suffice for other types of personal injury damage incurred on board.

4.3.3. **Sufficient limits of liability**

The Commission accepts that the strict liability of the carrier could be subject to maximum limits, in particular as the regime in order to be effective needs to be coupled with rigorous insurance requirements. Such limits, however, need to be set at a limit which is deemed sufficiently high, in particular as regards death and personal injury claims.

The determination of an adequate limit is complicated by the generally limited availability of statistical information on the costs of passenger ship accidents. Generally speaking, despite a series of tragic ferry accidents in European waters, there are few known cases, out of those already settled, indicating manifest shortcomings in the compensation regime for seaborne passengers. This, however, may be taken as an indication of flexible insurance practices rather than evidence in favour of the adequacy of the current maximum limits. In the view of the Commission, fair compensation of passengers should minimise the reliance on such

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\(^{18}\) Article 3.3 of the Athens Convention, however, does provide for a presumption of fault of the carrier if the damage arose from shipwreck, collision, stranding, explosion or fire, or defect in the ship.
flexibility, even in expensive claims, and should therefore be based on limits which correspond to, or exceed, those of comparable compensation regimes.

The strict liability of the air carrier is limited to around € 143,000 at EU-level. This figure is likely to become applicable at international level, through the entry into force of the Montreal Convention, within a near future. In the maritime context, the 1990 Protocol to the Athens Convention, increased the limit substantially up to 175,000 SDR (€ 250,000), which corresponds to the overall limit laid down for passenger ships in the 1996 Protocol to the Convention on Limitation of Liability for Maritime Claims (LLMC). Despite having been implemented in the legislation of some Member States, neither of these Protocols have entered into force internationally.

In the view of the Commission, the limit of the 1990 Protocol to the Athens Convention, as deflated into present day value, constitutes the minimum acceptable figure for a strict liability regime for death and personal injury claims. That figure has already been agreed by the international community in the context of negotiations of previous instruments. However, such a figure presupposes that the overall per passenger liability, including liability in case of fault or neglect by the carrier, will be substantially higher.

4.3.4. Extended liability in case of fault or neglect

It is generally accepted that the right of carriers to limit their liability should be waived in cases of gross misconduct. Currently the limitation right, both in the Athens Convention and in the LLMC regime, is lost only where the carrier has acted “with intent to cause such damage, or recklessly and with knowledge that such damage would probably result”. Clearly, there can be very few incidents involving passenger ships that would satisfy those criteria and for practical purposes the limitation right may therefore be considered to be unbreakable at present. In the view of the Commission, this is a major default of the existing regime, as an unbreakable limitation right amounts to a right for carriers and their insurers to deny passengers compensation above a certain limit, no matter how justified the claims may be and irrespective of the cause of the accident. In addition, unbreakable limitation rights in general provide little incentive for the carrier to take the appropriate precautions to avoid accidents in the first place.

The Commission considers that the liability for death and personal injury to passengers, whether caused by a shipping incident or not, shall be subject to a significantly higher limitation figure than that proposed for the part covered by strict liability described in the previous section. If there shall be a limit for the liability for death and personal injury at all, it should be high enough to fully cover foreseeable losses. This would correspond better to normal principles of tort law and would be more consistent with the regime applying in the aviation sector as well as being coherent with the Commission’s views regarding the liability regime for oil pollution damage. In order to ensure further consistency with the regime applicable in the aviation sector, a distinction should be made between shipping incidents and

19 In 1990, SDR 175,000 corresponded to an average of ECU 186,752.7 (Eurostat/New Cronos). By deflating this figure with the consumer price index between 1990 and 2003 (estimated time for adoption of the proposed limit), which according to the Commission’s estimates is 142.27 for the 15 EU Member States, one arrives at a figure of € 265,000. In other words, due to the difference in value between SDR and ECU/EUR since 1990, the deflated limitation figure is only marginally different from the one adopted in 1990.

other incidents as regards the basis of liability. For shipping incidents it is reasonable to presume fault or neglect on behalf of the carrier. In other words, like in the Montreal Convention, the carrier should be held liable for loss suffered as a result of death of or personal injury to a passenger, unless the carrier can prove that the incident occurred without fault or neglect on his part.

4.3.5. **Compulsory insurance**

None of the applicable international conventions on passenger liability, includes a requirement for carriers to be adequately insured. The absence of insurance requirement on passenger carriers is out of any proportion with the risks involved in the carriage of hundreds or thousands of passengers on board a ship. While it is true that most passenger ships nevertheless are financially protected, usually through entry in one of the mutual Protection & Indemnity (P&I) Clubs, the absence of formal requirements on insurance standards lacks justification. Compulsory insurance requirements must therefore form an integral part of any passenger liability regime. For the purpose of ensuring equality between carriers, the insurance requirements shall apply to all carriers, irrespective of flag of the ship, providing a service to or from an EU port. As to the amount, the insurance needs to cover the maximum strict liability limits per passenger and a reasonable amount beyond that limit, multiplied by the maximum number of persons on board.

4.3.6. **Direct action**

The possibility for claimants to make their claims directly against the insurer is of key importance in shipping, as the carrier may at times be difficult to trace and/or unable to fully meet its financial obligations. Therefore, the existence of a right of ‘direct action’ against the insurer is instrumental in any maritime liability regime if it is to serve its purpose effectively. It is clear therefore, that such a requirement must be included in a future passenger liability regime for carriers of passengers by sea. As to the economic extent of this right, it should equal the full per capita limitation amount which is subject to compulsory insurance.

4.3.7. **National carriage**

The liability regime should cover all transports in the Community, including carriage within a single Member State. The Athens Convention regime only applies to international voyages. A number of Member States, however, have decided to extend its application to national carriage as well. In line with the Community’s philosophy underlying its existing legislation for passenger ships, that the level of protection of passengers shall not depend on whether the service is between two Member States or purely domestic in nature, the liability regime shall therefore extend to all types of carriage.

4.4. **The way ahead**

A Community liability regime for passengers carried by sea that meets all the criteria outlined above would satisfy the present day needs of passengers on board ferries and cruise ships and would create a uniform liability regime within the Member States. In sum, such a regime would include many of the key features of the liability regime which applies in the aviation sector, but would provide some additional benefits for passengers in that the limits of the strict liability would be higher and the insurance requirements would be considerably more elaborated. Importantly, the insurance requirements would cover all carriers, irrespective of the flag or registration of the vessel entering or leaving Community ports. The Commission
considers that such a liability regime for carriers of passengers by sea should be put in place within the Community as soon as possible.

The preparation of a proposal for an EU-wide maritime passenger liability regime coincides with the elaboration of a new Protocol to the Athens Convention, which is scheduled for adoption in late 2002. A draft Protocol was approved by the IMO Legal Committee at its 83rd session on 8-12 October 2001 and will be transmitted for adoption by a Diplomatic Conference scheduled for October-November 2002. The draft Protocol introduces, among other things, compulsory insurance requirements for passenger carriers and a regime of strict liability coupled with rights of direct action. It is also intended to considerably raise the liability limits for death or personal injury to passengers caused by shipping incidents. A possibility for States Parties to apply higher limits of liability for claims of loss of life or personal injury to passengers in case of negligence by the carrier (where shipping incidents would be subject to a reverse burden of proof for the benefit of claimants) is also introduced. As to the application of the provisions of the Protocol to national carriage, which is not directly addressed in the text, it appears that the international regime would not prohibit such complementary measures by its contracting parties.

In sum, it seems likely that the new Protocol would largely satisfy the concerns expressed above, provided that the limits of liability are sufficiently high. Importantly, even if the overall liability limit for claims relating to death or personal injury would not be sufficiently high, the Protocol as presently drafted would still allow for the possibility for its contracting parties to apply higher limits or no limits at all. In the interest of promoting widespread adherence to the passenger liability regime, the Commission therefore considers that the Member States and the Community as a whole should make efforts to have the new Protocol to the Athens Conventions adopted and brought into force on a wide scale as soon as possible.\textsuperscript{21}

The new Protocol to the Athens Convention looks set to provide for the possibility for the Community as such to become a contracting party to it. Community adherence to the new Protocol alongside with its Member States is necessary in light of the exclusive Community competence over certain matters regulated in the Protocol,\textsuperscript{22} which followed the adoption of Regulation 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters.\textsuperscript{23}

The form of the Commission’s proposal to achieve a maritime passenger liability regime that meets the elements outlined above is not yet certain. This will depend on the outcome of the Diplomatic Conference on the Athens Protocol. Ideally, the Community regime could be applied within the global regime and thus form part of a wider internationally harmonised regulatory framework. An international solution would have a number of advantages, not least from the practical and procedural perspective, given that passenger claims by their nature are susceptible to govern disputes involving potentially many different parties and many different States’ legal systems. At the same time, however, the Commission in this case considers that a satisfactory regional solution is to be preferred to an unsatisfactory international one. Should

\begin{footnotesize}
\textsuperscript{21} The entry into force of the new Athens Protocol is conditional upon a certain number of States expressing their consent to be bound by it. The number of States required to bring the Protocol into force is yet to be established, but the number serving this purpose in the Athens Convention was ten.

\textsuperscript{22} Article 10 and 11 of the draft Protocol, replacing or amending Articles 17 and 17a of the Athens Convention, relate to the jurisdiction, the recognition and enforcement of judgments given in accordance with the Protocol. Those provisions affect the provisions of Regulation 44/2001.

\end{footnotesize}
the outcome of the Diplomatic Conference adopting the Athens Protocol represent fundamental shortcomings with respect to the key elements outlined in this section, or other impediments to their implementation, the Commission will therefore propose a Community-wide regime containing the necessary elements. Considering the importance of the matter under regulation, the adequate compensation of death and personal injury of passengers, the Commission believes that a Community-wide regime in this area is a well-justified and necessary measure, should the international agreement fail to provide the necessary guarantees.
Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on specific stability requirements for ro-ro passenger ships
EXPLANATORY MEMORANDUM

GENERAL INTRODUCTION

1. Background

The stability following collision damage is an issue of prime importance for the survivability of ro-ro passenger ships, due to their particular design. It is obvious that in general, the longer the period a ship remains afloat in case of serious damage, the more efficient the eventual evacuation or search and rescue operations can be. In that perspective the stability requirements applicable to these ships influence directly the safety of passengers and crew. These considerations become even more important in view of the escalating size of ro-ro ships serving Community ports and the increasing number of passengers and crew they carry.

As both practise and research has demonstrated, the most dangerous problem for a ro-ro ship with an enclosed ro-ro deck is the one posed by the effect of a build-up of significant amount of water on that deck. However, with the application of the appropriate technical standards a damaged vessel may stay afloat even when a certain amount of water made its way to the ro-ro deck (the car deck). Research has clearly shown that the residual freeboard of the ship and the waves height in a particular sea area had a significant effect on the amount of water which may accumulate following collision damage.

The stability of ro-ro passenger ships has been addressed at international level by the International Maritime Organisation and specific standards have been established in that respect, particularly on the basis of the SOLAS 90 Convention\(^\text{24}\) and Resolution A265. These standards, implicitly include the effect of water entering the ro-ro deck in a sea state in the order of 1.5 m significant wave height and have a phasing-in timetable for existing ships ranging from 1 October 1998 to 1 October 2010.

Following the Estonia disaster, eight European countries (Denmark, Finland, Germany, Ireland, Netherlands, Norway, Sweden and the United Kingdom) decided in February 1996 to require higher standards of damage stability for ro-ro passenger ships than those prescribed by SOLAS 90. These new standards were introduced in the context of the Stockholm Agreement (SA) to which the above eight countries became parties. The Stockholm Agreement stability requirements are complementary to the SOLAS 90 standard, aimed at increasing the survivability of the ro-ro vessels in sea states between 1.5 m and 4 m significant wave height. These complementary requirements take specifically into account the probability of water accumulation in the car deck, up to a height of 0.5 m. The Stockholm Agreement established a phasing-in period ranging from 1 April 1997 to 1 October 2002.

At the adoption of the Stockholm Agreement, noting its regional application, the Commission announced its intention to examine the prevailing local conditions, under which ro-ro passenger ferries sail in all European waters and that this examination would include the extent and effect of the application of the Agreement in the region covered by it. The statement concluded that in the light of this examination the Commission would take a decision with regard to the need for further initiatives.

The Council entered a similar statement into the meeting of the 2074\(^\text{th}\) Council meeting of 17 March 1998 at which Council Directive 98/18/EC on safety rules and standards for passenger

\(^{24}\) International Convention for the Safety of Life at Sea as revised in 1990
ships was adopted. In this statement the need to ensure the same level of safety for all ro-ro passenger ferries operating in similar conditions was more precisely defined by referring to both international and domestic voyages. Directive 98/18/EC made mandatory the application of SOLAS 90 stability standards to domestic EU trades for new class A, B, C and D ships and existing class A and B ships.

Following the last serious accident involving a ro-ro passenger ship, the "Express Samina" which occurred in Greece in September 2000, the European Parliament invited the Commission to examine the effectiveness of the Stockholm Agreement and other measures for improving the stability and safety of passenger vessels.

In this context and following a thorough analysis on the Stockholm Agreement, the Commission included this item in its work programme for 2001.

2. The SOLAS stability requirements and the Stockholm Agreement

2.1. The question of stability of passenger vessels has been addressed repeatedly by the International Maritime Organisation (IMO) in the context of the International Convention for the Safety of Life at Sea (SOLAS) and the first damage stability requirements were introduced in 1948 followed by improvements in 1960 and 1974. However, the major step in the development of stability standards for ro-ro ships came in 1990 with the introduction of a new section in the SOLAS Convention. These requirements (known as SOLAS 90 stability standard) are internationally accepted and apply to passengers vessels involved in international voyages from/to EU ports, as well as to domestic trades within Member States by means of the Directive 98/18/EC. The SOLAS 90 standard implicitly include the effect of water entering the ro-ro deck in a sea state in the order of 1.5 m significant wave height.

The SOLAS 90 requirements have a phasing-in period for all existing ro-ro passenger ships with dates of compliance ranging from 1 October 1998 to 1 October 2010 depending on a combination of different factors.

2.2. In the aftermath of the Estonia disaster, 8 European countries (Denmark, Finland, Germany, Ireland, Netherlands, Norway, Sweden and the United Kingdom), agreed in February 1996 in Stockholm to require higher standards of damage stability for ro-ro passenger ships than what had been determined just a few years earlier by the IMO SOLAS 90 standard. The key idea behind this initiative was that a ship should be designed to resist capsize even when a certain quantity of water has made its way to the vehicle (ro-ro) deck.

The Stockholm Agreement (SA) was established in the context of IMO Resolution 14 of the 1995 SOLAS Conference, allowing contracting governments to conclude such an agreement if they consider that prevailing sea conditions and other local

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25 OJ L144, 15.05.1998, p. 1
26 These classes are defined in line with the type of sea area the ships operate, in accordance with article 4 of Council Directive 98/18/EC.
28 SOLAS Chapter II-1, part B.8 (Stability in damaged condition).
29 These factors are: the vessel's A/Amax value, the number of persons carried and its age. (The A/Amax calculation procedure is a simplified version of probabilistic damage stability calculation of ships, adopted by IMO as a means of trying to compare the survivability of one ship against another in order to achieve a hierarchy for phasing-in purposes. It is not a survivability standard.)
conditions require specific stability requirements in a designated area. It was notified to the IMO on 1 April 1996 in accordance with operative paragraph 3 of Resolution 14 and entered into force on 1 April 1997 in accordance with its article 10\(^\text{30}\). In simplified terms, the SA standards are complementary to SOLAS 90 standards with the addition of technical requirements to satisfy explicitly the “water in the car deck” probability. Compliance with these requirements is measured whether on basis of numerical calculations defined in the Agreement or by performing model experiments in accordance with the model testing method of SOLAS 95 Resolution 14.

According to the logic of the Agreement, the residual freeboard of the vessel and the significant wave height (hs) of the area where a ship operates determine the height of water on the car deck that would arise following the occurrence of an accidental damage. Consequently, a ship should be designed to withstand the significant wave heights that prevail in the routes, or areas, where she operates. Taking into account the above parameters, the result from the application of the SA stability requirements is that a vessel should resist capsize even with a flooded ro-ro deck up to a level of 0.5 metre. The maps indicating significant wave heights values by area that appear in the Stockholm Agreement, have been defined by the contracting governments and they are based on all year round statistics.

The specific stability requirements of the SA are applicable to ro-ro passenger ships regardless of flag, operating on regular international voyages carrying passengers between designated ports to or from designated ports in the area covered by the Agreement. As for their enforcement, the Agreement provided for a phasing-in period ranging from 1 April 1997 for ro-ro passenger ships with the lowest A/A\(_{\text{max}}\) values, to 1 October 2002 for ships already complying with the SOLAS 90 stability standard.

3. The EU position towards the Stockholm Agreement

3.1. At the conclusion of the Conference at which the Agreement was adopted, the Commission services issued a statement, taking note of the Agreement concluded and expressing the opinion that the same level of safety should be ensured for all ro-ro passenger ferries operating in similar conditions. Noting that the Agreement is not applicable in other parts of the European Union, the Commission announced its intention to examine the prevailing local conditions, under which ro-ro passenger ferries sail in all European waters and that this examination would include the extent and effect of the application of the Agreement in the region covered by it. The statement concluded that in the light of this examination the Commission would take a decision with regard to the need for further initiatives.

This Commission statement was confirmed at the 1907\(^{\text{th}}\) meeting of the Council, on 11 March 1996, at which the outcome of the Stockholm Agreement was discussed by the Ministers of Transport.

The Council agreed to enter a similar statement into the meeting of the 2074\(^{\text{th}}\) Council meeting of 17 March 1998 at which Council Directive 98/18/EC on safety rules and standards for passenger ships was adopted. In this statement the need to

\(^{30}\) IMO Circular letter No. 1891 of 29 April 1996.
ensure the same level of safety for all ro-ro passenger ferries operating in similar conditions was more precisely defined by referring to both international and domestic voyages. Directive 98/18/EC made mandatory the application of SOLAS 90 stability standards to domestic EU trades for new class A, B, C and D ships and existing class A and B ships.

3.2. Furthermore, Directive 1999/35/CE on a system of mandatory surveys for the safe operation of regular ro-ro ferry and high speed passenger crafts, provides in its article 4.1.e that ro-ro ferries shall fulfil the specific stability requirements adopted at regional level, when operating in the region covered by such regional rules. This obliges host States to check that ro-ro ferries “comply with specific stability requirements adopted at regional level, and transposed into their national legislation in accordance with the notification procedure laid down in Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on information society services, when operating in that region a service covered by that national legislation, provided those requirements do not exceed those specified in the Annex of Resolution 14 (Stability Requirements Pertaining to the Agreement) of the 1995 SOLAS Conference and have been notified to the Secretary-General of the IMO, in accordance with the procedures specified in point 3 of that resolution.”

3.3. Following its earlier commitment the Commission contracted a study to examine the extent and effect of the application of the Stockholm Agreement concerning specific stability requirements for ro-ro passenger ships and the suitability of extending its scope of application to European waters not covered by it. Furthermore the economic impact of the application of the Stockholm Agreement has been analysed and found acceptable, as demonstrated in the following chapter.

3.4. The European Parliament with its Resolution B5-0783, 0787 and 0791/2000 of 5 October 2000, which followed the "Express Samina" accident, stressed that it "awaits the evaluation by the Commission of the effectiveness of the Stockholm Agreement and other measures for improving the stability and safety of passenger vessels"

3.5. Following the evaluation made by the Commission, based on consultation of interested parties and inputs from various sources including the findings of the above study, it is considered that a legislative initiative in the field covered by the Stockholm Agreement is justified.
JUSTIFICATION FOR THE PROPOSED COMMUNITY INITIATIVE

Research following the accidents of Herald of Free Enterprise and Estonia, demonstrated that the worst stability related danger for a ro-ro ship with an enclosed ro-ro deck is caused by the effect of a build-up of significant amount of water on that deck.

The current IMO damage stability requirements applicable to ro-ro passenger ships (SOLAS 90), which also apply to domestic EU trades by means of the Directive 98/18/EC, implicitly include the effect of water entering the ro-ro deck in a sea state in the order of 1.5 m significant wave height. However, the damage stability requirements defined by the Stockholm agreement increase the survivability of the vessels in more severe sea states, since they complement the SOLAS requirements to take into account the effect of water which could accumulate on the ro-ro deck following damage.

The Commission has declared that it could propose the application of these specific stability requirements for the entire EU after having studied the local conditions in the South European waters. Although the expert study of the Commission sustains that other safety critical conditions (as visibility or water temperatures) may be generally less severe in the South European waters, the significant wave heights values are comparable or even higher than those in the Baltic sea, whilst waves are known to be steeper in South European waters.

The analysis shows that the introduction of the SA in the North of Europe took place without particular trouble for the industry or the contracting governments. Based on a sample of 82 vessels, out of a total of 140 that needed to comply with the Agreement, it appears that 36% of the vessels in that sample did not need any upgrade. Furthermore, 69% of the total 140 vessels were upgraded for less than 1 million EURO. The estimated total cost of upgrade was around 85 mio EURO. However it is important to note that most of that cost is related to the accelerated compliance with SOLAS 90 standards (a necessary step before compliance with the Stockholm Agreement) rather than just to compliance with the Agreement as such.

The economic analysis in the study concludes that, given the common value of significant wave heights in the Southern EU waters is around 2.5 metres, the modification cost of the South European fleet for compliance with the provisions of the SA will be approximately the same as the associated cost for compliance with the requirements of the SOLAS 90 two compartment standard\textsuperscript{31}. Since full compliance with SOLAS Regulations is to take place by 2010, on the basis of the IMO timetable (international trades) and of Directive 98/18/CE (domestic EU trades) the industry should have already planned to invest in the coming years in the upgrade of the vessels concerned. The study states that 264, operating both in international and domestic trades, vessels will be affected from the SOLAS upgrade and that the cost of compliance will be among 106 and 250 million EURO (these figures do not take into account possible removals from service of aged ro-ro ships). As already mentioned, compliance of these ships with the specific stability requirements set out in the Stockholm Agreement will not increase their SOLAS compliance cost in a prohibitive way.

It appears therefore that the application of the SA stability requirements to the South European ro-ro passenger vessels will offer a uniformity of stability requirements and an increased level of survivability of ro-ro passenger ships throughout the EU, without

\textsuperscript{31} SOLAS 90 two compartment standard establishes that the ship can survive without capsizing with two main compartments flooded following damage.
increasing substantially the economic effort of the affected part of the industry, which has to comply anyway with the SOLAS 90 standard.

In light of the above, the Commission is of the opinion that the division of north/south as regards stability requirements for ro-ro vessels in damaged condition (Stockholm Agreement standards in the North and SOLAS 90 standards in the South) does not seem justified on grounds of the safety parameters or for techno-economic reasons.

A European Parliament and Council Directive imposing the specific stability standards as defined in the Stockholm Agreement to all ro-ro passenger ships engaged in international voyages from/to EU ports is the right way forward. It is to be noted that newly built ferries, both for operation in Northern and in Southern Europe, generally comply with the aforementioned increased stability standards. The upgrading of existing ro-ro passenger ships operating in southern Europe will require a transitional period, as it was the case with the introduction of the Stockholm Agreement standards for the fleet operating in northern Europe.

Taking into account that operating conditions for ro-ro passenger ships in domestic voyages in the Member States are often similar to those in international voyages, the Commission proposal amending Council Directive 98/18/EC contains specific provisions to that respect. In fact it provides for the introduction of the same or equivalent stability standards for ro-ro ships operating in domestic voyages, as those proposed for ro-ro ships operating in international voyages.
CONTENT OF THE PROPOSED DIRECTIVE

The proposed Directive will introduce the specific stability requirements of the Stockholm Agreement to the entire EU, covering all ro-ro passenger ships operating from/to EU ports in international voyages.

The specific stability requirements are a complement to the present international IMO standard (SOLAS 90) and are already applicable to 7 northern EU Member States, which are parties to the Stockholm Agreement established in the context of the IMO Resolution 14 of the 1995 SOLAS Conference. This Directive will create a uniformity of stability requirements for ro-ro passenger vessels operating under same conditions and will introduce in the EU framework a regional Agreement agreed under IMO auspices.

The main advantage of the proposed stability requirements is their contribution to an improved survivability of this type of ships following collision damage and the direct connection of the applicable standard to the specific service the ships are engaged in. The requirements are indeed established on the basis of the values of the significant wave heights occurring in the sea areas the ships travel. Taking into account the operating conditions of the ship, the specific stability requirements guarantee the ship's stability in damaged condition with up to 0.5 metres of water accumulated in its ro-ro deck.

In view of the structural modifications that the existing ships may have to undergo in order to comply with the new stability requirements, the Directive introduces a phasing-in period, taking into account the compliance dates of SOLAS 90.

SPECIAL CONSIDERATIONS

Article 1

The purpose of this Directive is to lay down a uniform level of specific stability requirements for ro-ro passenger ships, which will improve the survivability of this type of vessels in case of collision damage and provide a higher level of safety for the passengers and the crew. In view of the fact that 7 northern EU Member States already apply these specific stability requirements by means of a regional Agreement, the proposed Directive will result at the introduction of this regional Agreement in the Community framework and its extension to the Southern European waters and the Atlantic coast.

Article 2

This article contains the definitions of the key terms used in the Directive and are based on the IMO SOLAS Convention (International Convention for the safety of life at sea) definitions, as well as existing Community legislation, particularly Directive 98/18/EC of 17 March 1998 on safety rules and standards for passenger ships.

Article 3

Article 3 defines the scope of the Directive. This will apply to all ro-ro passenger ships operating to or from a port of a Member State on a regular service, regardless of their flag, when engaged on international voyages.
Article 4

This article specifies that the value of the significant wave heights shall be used for determining the height of water on car deck when applying the specific stability standard.

Article 5

This Article specifies that in the light of Article 4, Member States have to establish the sea areas under their jurisdiction as well as the areas between Member State and Member States and third countries, where ro-ro passenger ships which serve the Community ports undertake voyages.

These areas and the corresponding significant wave heights will be notified to the Commission and be publicly available by the competent maritime authorities of Member States.

Article 6

This Article establishes the connection to the specific stability requirements set out in the Annex 1 of the Directive. These requirements will apply in addition to the requirements of SOLAS regulation II-1/8 on stability in damaged conditions.

The specific stability requirements are therefore complementary to the SOLAS 90 stability standard and take specifically into account the effect of water which could accumulate on the ro-ro deck following damage, in order to enable the ship to survive in more severe sea states than 1.5 m significant wave height.

The specific stability requirements introduced by this Directive are based on a mathematical formula which calculates the height of water on the ro-ro deck following a collision damage depending on two basic parameters: the ship’s residual free board and the significant wave height in the sea area where the ship operates.

This article makes also reference to the guidelines to Member States for applying the specific stability requirements set out in Annex I, which are presented in the Annex II of the Directive. These guidance notes were presented to the International Maritime Organisation by the governments of Denmark, Finland, Sweden and the United Kingdom at the 40 session of the IMO sub-Committee on stability and Load Lines and Fishing vessels safety of 5 July 1996.

Article 7

Article 7 specifies that new ships will comply with the specific stability requirements as from 1 October 2004, while it introduces a phasing-in period for the compliance of existing ships. Such period has been considered necessary in view of the structural modifications the existing ships will have to undertake, in addition to the modifications which they will have to undertake on the basis of the SOLAS 90 requirements. A final deadline for compliance has been set on 1 October 2010. This timetable takes into account that the large majority of ro-ro passenger ships will have to comply with SOLAS stability standards by 1 October 2005 and that the final date of compliance under SOLAS is also 1 October 2010.

Article 8

Article 8 refers to the compliance certificate to be issued to all vessels falling under the scope of this Directive by the flag State Administration. Certificates of compliance issued by a
Member State will be accepted by all Member states. Each Member State acting on its capacity as host state shall accept the operational certificate issued by a non Member State certifying that a ship complies with the specific stability requirements established in this Directive

**Article 9**

The provisions of that article authorise the specific treatment of ro-ro passenger ships operating only on seasonal basis in an area where the significant wave height during such season is of a lower value than that for a year round operation in the same area. In such case, the specific stability requirements introduced by this Directive will be based on the seasonal values of the significant wave heights to be defined by Member States. Such seasonal operation may offer certain flexibility to operators wishing to introduce additional ships on a high season, offering additional possibilities to the travelling public, without lowering at all the safety standard provided.

**Article 10 & 11**

Article 10 makes reference to the possible adaptation of the Annexes to the Directive, in the light of the technical progress, the experience gained or of regulatory developments in the international (IMO) level. As established in Article 11, in such case the Commission will be assisted by the Committee established pursuant to Article 12(1) of Directive 93/75/EC32.

**Article 12**

Following this article, Member States shall lay down a system of dissuasive measures, penalties for breaching the national provisions adopted pursuant to this Directive. In view of the complex technical nature of the standards introduced, particular vigilance is requested by the Member States in their implementation.

**Article 13**

This article sets up a deadline for the transposition of this Directive in the national legislation of Member States, which is 1 January 2004

**Article 14**

No comments.

**Article 15**

No comments

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Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on specific stability requirements for ro-ro passenger ships

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 80(2) thereof,

Having regard to the proposal from the Commission,

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

Having regard to the opinion of the Committee of the Regions,

Acting in accordance with the procedure laid down in Article 251 of the Treaty,

Whereas:

(1) Within the framework of the common transport policy further measures must be taken to improve safety in maritime transport of passengers.

(2) The Community wishes to avoid by all appropriate means shipping accidents involving ro-ro passenger ships and resulting in loss of life.

(3) The survivability of ro-ro ships following collision damage, as determined by their damage stability standard, is an essential factor for the safety of passengers and crew and is particularly relevant for search and rescue operations; the most dangerous problem for the stability of a ro-ro ship with an enclosed ro-ro deck, following collision damage, is the one posed by the effect of a build up of significant amount of water on that deck.

(4) Persons using ro-ro passenger ships and crew employed on board such vessels throughout the Community, have the right to demand the same high level of safety regardless of the area in which ships operate.

33 OJC , p. ..
34 OJC , p. ..
35 OJC , p. ..
(5) In view of the internal market dimension of maritime transport of passengers, action at Community level is the most effective way of establishing a common minimum level of safety for ships throughout the Community.

(6) Action at Community level is the best way to ensure the harmonised enforcement of principles agreed on within the International Maritime Organisation (IMO), thus avoiding distortions of competition between the operators of ro-ro passenger ships operating in the Community.

(7) General stability requirements for ro-ro passenger vessels in damaged conditions were established at international level by the 1990 SOLAS Conference and were included in the chapter II-1, Part B8 of the SOLAS Convention (SOLAS 90 standard). These requirements are applicable in the entire Community owing to the direct application to international voyages of the SOLAS Convention and the application to domestic voyages of Council Directive 1998/18/EC of 17 March 1998 on safety rules and standards for passenger ships 36.

(8) The damage stability standard of SOLAS 90 implicitly include the effect of water entering the ro-ro deck in a sea state in order of 1.5 m significant wave height.

(9) IMO Resolution 14 of the 1995 SOLAS Conference, allowed IMO members to conclude regional agreements if they consider that prevailing sea conditions and other local conditions require specific stability requirements in a designated area.

(10) Eight northern European countries, including seven Community Member States, agreed in Stockholm on 28 February 1996 to introduce a higher stability standard for ro-ro passenger vessels in damaged condition in order to take into account the effect of water accumulation on the ro-ro deck and to enable the ship to survive in more severe states than the SOLAS 90 standard, up to 4 m significant wave heights.

(11) Under this agreement, known as the Stockholm Agreement, the specific stability standard is directly related to the sea area in which the vessel operates and more particularly to the significant wave height recorded in the area of operation; the significant wave height of the area where the ship operates determines the height of water on the car deck that would arise following the occurrence of an accidental damage.

(12) At the conclusion of the Conference at which the Stockholm Agreement was adopted, the Commission noted that the Agreement was not applicable in other parts of the Community and announced its intention to examine the prevailing local conditions under which ro-ro passenger ships sail in all European waters and to take appropriate initiatives.

(13) The Council entered a statement in the minutes of the 2074th Council meeting of 17 March 1998 stressing the need to ensure the same level of safety for all passenger ferries operating in similar conditions, whether on international or on domestic voyages.

(14) In the aftermath of the "Express Samina" accident, the European Parliament adopted on 5 October 2000, its resolution B5-0783, 0787 and 0791/2000 where it expressly

36 OJ L 144, 15.5.1998, p. 1
stated that it awaited the evaluation by the Commission of the effectiveness of the Stockholm Agreement and other measures for improving the stability and safety of passenger ships.

(15) Following an expert study by the Commission, the wave height conditions in South European waters were found similar to those in the north; while general meteorological conditions may be generally more favourable in the south, the stability standard determined in the context of the Stockholm Agreement is based solely on the significant wave height parameter and the way this influences the accumulation of water on the ro-ro deck.

(16) The application of Community safety standards regarding the stability requirements for ro-ro passenger ships is essential for the safety of these vessels and has to be part of the common maritime safety framework.

(17) In the interest of improving safety and avoiding distortion of competition, the common safety standards regarding stability should apply to all ro-ro passenger ships, regardless of the flag that they fly, providing regular services to or from a port in the Member States on international voyages.

(18) The safety of ships is primarily the responsibility of flag States and therefore each Member State should ensure compliance with the safety requirements applicable to the ro-ro passenger ships flying the flag of that Member State.

(19) Member States should also be addressed in their capacity as host States; the responsibilities exercised in that capacity are based on specific port State responsibilities that are fully in line with the 1982 United Nations Convention on the Law of the Sea (UNCLOS).

(20) The specific stability requirements introduced by this Directive should be based on a method which calculates the height of water on the ro-ro deck following a collision damage in relation to two basic parameters: the ship’s residual free board and the significant wave height in the sea area where the ship operates.

(21) Member States should determine and publicise the significant wave heights in the sea areas under their jurisdiction; for international routes the significant wave heights should be established in agreement between the States at both ends of the route. Significant wave heights for seasonal operation in the same sea areas may also be determined.

(22) Every ro-ro passenger vessel engaged in voyages within the scope of this Directive, should fulfil the stability requirements in relation of the significant wave heights determined for its area of operation; it should carry a certificate of compliance issued by the flag Member State, which should be accepted by all other Member States.

(23) The SOLAS 90 stability standards provides equivalent level of safety to the specific stability requirements established by this Directive for ships operating in sea areas where the significant wave height is equal or less than 1,5m.

(24) In view of the structural modifications that the existing ships may need to undergo in order to comply with the specific stability requirements, those requirements should be introduced over a period of years in order to allow sufficient time to the affected part
of the industry to comply: to that end, a phasing-in timetable for existing ships should be provided.

(25) Since the measures necessary for the implementation of this Directive are measures of general scope within the meaning of Article 2 of Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission\(^{37}\), they should be adopted by use of the regulatory procedure provided for in Article 5 of that Decision.

(26) Since the objectives of the proposed action, namely to safeguard human life at sea by improving the survivability of ro-ro vessels in the event of damage, cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale and effects of the action, be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.

HAVE ADOPTED THIS DIRECTIVE:


**Article 1**

**Purpose**

The purpose of this Directive is to lay down a uniform level of specific stability requirements for ro-ro passenger ships, which will improve the survivability of this type of vessels in case of collision damage and provide a higher level of safety for the passengers and the crew.

**Article 2**

**Definitions**

For the purpose of this Directive, the following definitions shall apply:

(a) "ro-ro passenger ship" means a seagoing passenger vessel with facilities to enable road or rail vehicles to roll on and roll off the vessel, and carrying more than 12 passengers;

(b) "new ship" means a ship the keel of which is laid or which is at a similar stage of construction on or after 1 October 2004: a similar stage of construction means the stage at which:

   (i) construction identifiable with a specific ship begins; and

   (ii) assembly of that ship has commenced comprising at least 50 tonnes or 1% of the estimated mass of structural material, whichever is less;

(c) "an existing ship" means a ship which is not a new ship;
(d) "a passenger" is every person other than the master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship;

(e) "International Conventions" means the 1974 International Convention for the Safety of Life at Sea (the 1974 SOLAS Convention), and the 1966 International Convention on Load Lines, together with Protocols and amendments thereto in force on the date of adoption of this Directive;

(f) "regular service" means a series of ro-ro passenger ship crossings serving traffic between the same two or more ports, which is operated either:

(i) according to a published timetable; or

(ii) with crossings so regular or frequent that they constitute a recognisable systematic series;

(g) "Stockholm Agreement" means the Agreement concluded at Stockholm on 27 and 28 February 1996 in pursuance of SOLAS 95 Conference Resolution 14 "Regional Agreements on Specific Stability Requirements for ro-ro Passenger Ships", adopted on 29 November 1995;

(h) "administration of flag State' means the competent authorities of the State whose flag the ro-ro passenger ship is entitled to fly;

(i) "host State" means a Member State to or from whose ports a ro-ro passenger ship is engaged on a regular service;

(j) "international voyage" means a sea voyage from a port of a Member State to a port outside that Member State, or vice versa;

(k) "specific stability requirements" means the stability requirements set out in Annex I";

(l) "significant wave height" or ("hs") is the average height of the one third highest observed wave heights over a given period;

(m) "residual freeboard" is the minimum distance between the damaged ro-ro deck and the waterline at the location of the damage, without taking into account the additional effect of the sea water accumulated on the damaged ro-ro deck.

**Article 3**

**Scope**

1. This Directive shall apply to all ro-ro passenger ships operating to or from a port of a Member State on a regular service, regardless of their flag, when engaged on international voyages.

2. Each Member State, in its capacity as host State, shall ensure that ro-ro passenger ships, flying the flag of a State which is not a Member State, comply fully with the requirements of this Directive before they may be engaged on voyages from or to ports of that Member State in accordance with the provisions of article 4 of Directive 1999/35/EC.
Article 4

Significant wave heights

The significant wave heights (hs) shall be used for determining the height of water on the car deck when applying the specific stability standard contained in Annex 1. The figures of significant wave heights shall be those which are not exceeded by a probability of more than 10% on a yearly basis.

Article 5

Sea Areas

1. Member States shall establish, not later than six months before the date mentioned in Article 13, a list of sea areas under their jurisdiction and the corresponding values of significant wave heights.

2. The sea areas and the applicable values of the significant wave height in these areas shall be defined by agreement between the Member States or between Member States and third countries at both ends of the route. Where the ship's route crosses more than one sea area, the ship shall satisfy the specific stability requirements for the highest value of significant wave height identified for these areas.

3. The list shall be notified to the Commission and published in a public database available in the internet site of the competent maritime authority. The location of such information as well as any updates to the list and the reasons for such updates shall also be notified to the Commission.

Article 6

Specific stability requirements

1. Without prejudice to the requirements of regulation II-1/8 of the Safety of Life at Sea (SOLAS) Convention relating to watertight subdivision and stability in damaged condition, all ro-ro passenger ships referred to in Article 3 (1) shall comply with the specific stability requirements set out in Annex I to this Directive.

2. For ro-ro passenger ships operating in sea areas where the significant wave height is equal to or lower than 1,5 metres, compliance with the requirements of regulation II-1/8 the Safety of Life at Sea (SOLAS) Convention shall be considered equivalent to compliance with the specific stability requirements set out in Annex I.

3. In applying the requirements set out in Annex I, Member States shall use the guidelines set out in Annex II, in so far this is practicable and compatible with the design of the ship in question.

Article 7

Introduction of the specific stability requirements

1. New ro-ro passenger ships shall comply with the specific stability requirements as set out in Annex I.
2. Existing ro-ro passenger ships shall comply with the specific stability requirements as set out in Annex I by not later than 1 October 2010.

Article 8
Certificates

1. All new and existing ro-ro passenger ships flying the flag of a Member State shall carry a certificate confirming compliance with the specific stability requirements established in Article 6 and Annex I.

This certificate shall be issued by the Administration of the flag State and will indicate the significant wave height up to which the ship can satisfy the specific stability requirements as well as the area for which the certificate has been originally issued.

The certificate shall remain valid as long as the vessel operates in the same area or in another area within which the same value of significant wave height has been registered.

2. Each Member State acting in its capacity as host State shall recognise the certificate issued by another Member State in pursuance of this Directive.

3. Each Member State acting in its capacity as host State shall accept the certificate issued by a non member country certifying that a ship complies with the specific stability requirements established.

Article 9
Seasonal operation

1. If a shipping company operating a regular scheduled service on a year round basis wishes to introduce additional ro-ro passenger ships to operate for a shorter season on that service, it shall notify the competent authority of the host state or states not later than three months before the said additional ships are operated on that service.

Where such seasonal operation takes place under conditions of lower significant wave height than those established for the same sea area for a year round operation, the seasonal significant wave height value may be used by the competent authority for determining the height of water when applying the specific stability standard contained in Annex I. The seasonal value of the significant wave height to apply shall be agreed between the Member States or between Member States and third countries at both ends of the route.

2. Following agreement of the competent authority of the host State or States for a seasonal operation within the meaning of paragraph 1, the ro-ro passenger ship which undertakes such seasonal operations shall have to carry a certificate of compliance with the provisions of this Directive, as provided for in Article 8(1).
Article 10
Adaptations

In order to take account of developments at international level and, in particular, in the International Maritime Organisation (IMO) or to improve the effectiveness of this Directive in the light of experience and of technical progress, the Annexes may be amended in accordance with the procedure laid down in Article 11 (2).

Article 11
Committee

1. The Commission shall be assisted by the Committee set up pursuant to Article 12(1) of Directive 93/75/EEC\(^{38}\) composed of representatives of the Member States and chaired by the representative of the Commission.

2. Where reference is made to this paragraph, the regulatory procedure laid down in Article 5 of Decision 1999/468/EC shall apply, in compliance with Article 7 (3) and Article 8 thereof.

3. The period provided for in Article 5 (6) of Decision 1999/468/EC shall be of eight weeks.

Article 12
Penalties

Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all the measures necessary to ensure that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive.

Article 13
Implementation

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 1 January 2004 at the latest. They shall forthwith inform the Commission thereof.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

Article 14
Entry into force

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Communities.

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\(^{38}\) OJ L 247, 5.10.1993, p. 19
Article 15
Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament  
The President

For the Council  
The President
ANNEX I
SPECIFIC STABILITY REQUIREMENTS FOR RO-RO PASSENGER SHIPS

As referred to in Article 6

1. In addition to the requirements of regulation II-1/8 of the Safety at Sea (SOLAS) Convention relating to watertight subdivision and stability in damaged condition, all ro-ro passenger ships referred to in Article 3 (1) shall comply with the requirements of this Annex.

1.1 The provisions of regulation II-1/8.2.3 shall be complied with when taking into account the effect of a hypothetical amount of sea water which is assumed to have accumulated on the first deck above the design waterline of the ro-ro cargo space or the special cargo space as defined in regulation II-2/3 assumed to be damaged (referred to as "the damaged ro-ro deck" hereinafter). The other requirements of regulation II-1/B/8 need not be complied with in the application of the stability standard contained in this Annex. The amount of assumed accumulated sea water shall be calculated on the basis of a water surface having a fixed height above:

   (a) the lowest point of the deck edge of the damaged compartment of the ro-ro deck, or

   (b) when the deck edge of the damaged compartment is submerged then the calculation is based on a fixed height above the still water surface at all heel and trim angles;

as follows:

0.5 m if the residual freeboard (fr) is 0.3 m or less;

0.0 m if the residual freeboard (fr) is 2.0 m or more; and

intermediate values to be determined by linear interpolation, if the residual freeboard (fr) is 0.3 m or more but less than 2.0 m;

where the residual freeboard (fr) is the minimum distance between the damaged ro-ro deck and the final waterline at the location of the damage in the damage case being considered without taking into account the effect of the volume of assumed accumulated water on the damaged ro-ro deck;

1.2. when a high-efficiency drainage system is installed, the Administration of the flag State may allow a reduction in the height of the water surface.

1.3 For ships in geographically defined restricted areas of operation, the Administration of the flag State may reduce the height of the water surface prescribed in accordance with paragraph 1.1 by substituting such height of the water surface by the following:

1.3.1 0.0 m if the significant wave height (h_s) defining the area concerned is 1.5 m or less;

1.3.2 the value determined in accordance with 1.1 if the significant wave height (h_s) defining the area concerned is 4.0 m or above;
1.3.3 intermediate values to be determined by linear interpolation if the significant wave height \((h_s)\) defining the area concerned is 1.5 m or more but less than 4.0 m; provided that the following conditions are fulfilled:

1.3.4 the flag State Administration is satisfied that the defined area is represented by the significant wave height \((h_s)\) which is not exceeded with a probability of more than 10%; and

1.3.5 the area of operation and, if applicable, the part of the year for which a certain value of the significant wave height \((h_s)\) has been established are entered into the certificates.

1.4 as an alternative to the requirements of subparagraphs 1.1 or 1.3, the flag State Administration may exempt application of the requirements of subparagraphs 1.1 or 1.3 and accept proof, established by model tests carried out for an individual ship in accordance with the model test method, which appears in Appendix 1, justifying that the ship will not capsize with the assumed extent of damage as provided in SOLAS regulation II-1/8.4 in the worst location being considered under 1.1, in an irregular seaway, and

1.5 reference to acceptance of the results of the model test as an equivalence to compliance with paragraphs 1.1 or 1.3 and the value of the significant wave height \((h_s)\) used in the model tests shall be entered into the ship's certificates.

1.6 the information supplied to the master in accordance with SOLAS regulations II-1/8.7.1 and II-1/8.7.2, as developed for compliance with regulations II-1/8.2.3 to II-1/8.2.3.4, shall apply unchanged for ro-ro passenger ships approved according to these requirements.

2. For assessing the effect of the volume of the assumed accumulated sea water on the damaged ro-ro deck in paragraph 1, the following provisions shall prevail:

2.1 a transverse or longitudinal bulkhead shall be considered intact if all parts of it lie inboard of vertical surfaces on both sides of the ship, which are situated at a distance from the shell plating equal to one-fifth of the breadth of the ship, as defined in regulation II-1/2, and measured at right angles to the centreline at the level of the deepest subdivision load line.

2.2 in cases where the ship's hull is structurally partly widened for compliance with the provisions of this Annex, the resulting increase of the value of one-fifth of the breadth of it is to be used throughout, but shall not govern the location of existing bulkhead penetrations, piping systems, etc., which were acceptable prior to the widening.

2.3 the tightness of transverse or longitudinal bulkheads which are taken into account as effective to confine the assumed accumulated sea water in the compartment concerned in the damaged ro-ro deck shall be commensurate with the drainage system, and shall withstand hydrostatic pressure in accordance with the results of the damage calculation. Such bulkheads shall be at least 2.2 m in height. However, in case of a ship with hanging car decks, the minimum height of the bulkhead shall be
not less than the height to the underside of the hanging deck when in its lowered position.

2.4 for special arrangements such as, e.g., full width hanging decks and wide side casings, other bulkhead heights may be accepted based on detailed model tests.

2.5 the effect of the volume of the assumed accumulated sea water need not be taken into account for any compartment of the damaged ro-ro deck, provided that such a compartment has on each side of the deck freeing ports evenly distributed along the sides of the compartment complying with the following:

2.5.1 \[ A \geq 0.3 \ l \]

where \( A \) is the total area of freeing ports on each side of the deck in \( \text{m}^2 \); and \( l \) is the length of the compartment in m;

2.5.2 the ship shall maintain a residual freeboard of at least 1.0 m in the worst damage condition without taking into account the effect of the assumed volume of water on the damaged ro-ro deck; and

2.5.3 such freeing ports shall be located within the height of 0.6 m above the damaged ro-ro deck, and the lower edge of the ports shall be within 2 cm above the damaged ro-ro deck; and

2.5.4 such freeing ports shall be fitted with closing devices or flaps to prevent water entering the ro-ro deck whilst allowing water which may accumulate on the ro-ro deck to drain.

2.6 when a bulkhead above the ro-ro deck is assumed damaged, both compartments bordering the bulkhead shall be assumed flooded to the same height of water surface as calculated in paragraphs 1.1 or 1.3 above.

3. When determining significant wave height, the wave heights given on the maps or list of sea areas established by Member States in line with Article 5 of this Directive shall be used.

3.1 For ships which are to be operated only for a shorter season, the host State Administration shall determine in agreement with the other country whose port is included in the ships route, the significant wave height to be used.

4. Model tests shall be conducted in accordance with Appendix 1.
Appendix

Model test method

1. Objectives

In the tests provided for in paragraph 1.4 of the stability requirements included in Annex I, the ship should be capable of withstanding a seaway as defined in paragraph 3 hereunder in the worst damage case scenario.

2. Ship model

2.1 The model should copy the actual ship for both outer configuration and internal arrangement, in particular all damaged spaces having an effect on the process of flooding and shipping of water. The damage should represent the worst damage case defined for compliance with regulation II-1/8.2.3.2 of the Safety at Sea Convention (SOLAS 90). An additional test is required at a level keel midship damage, if the worst damage location according to SOLAS 90 is outside the range ± 10% Lpp from the midship. This additional test is only required when the ro-ro spaces are assumed to be damaged.

2.2 The model should comply with the following:

2.2.1 Length between perpendiculars (Lpp) is to be at least 3 m.

2.2.2 The hull is to be thin enough in areas where this feature has influence on the results.

2.2.3 The characteristics of motion should be modelled properly to the actual ship, paying particular attention to scaling of radii of gyration in roll and pitch motions. Draught, trim, heel and centre of gravity should represent the worst damage case.

2.2.4 Main design features such as watertight bulkheads, air escapes, etc., above and below the bulkhead deck that can result in asymmetric flooding should be modelled properly as far as practicable to represent the real situation.

2.2.5 The shape of the damage opening shall be as follows:

2.2.5.1 rectangular side profile with a width according to regulation II-1/8.4.1 of the Safety at Sea Convention and unlimited vertical extent;

2.2.5.2 isosceles triangular profile in the horizontal plane with a height equal to B/5 according to regulation II-1/8.4.2 of the Safety at Sea Convention.

3. Procedure for experiments

3.1 The model should be subjected to a long-crested irregular seaway defined by the JONSWAP spectrum with a significant wave height $h_s$ defined in 1.3 of the stability requirements and having peak enhancement factor $\gamma$ and peak period $T_p$ as follows:

3.1.1 $T_p = 4\sqrt{h_s}$ with $\gamma = 3.3$; and

3.1.2 $T_p$ equal to the roll resonant period for the damaged ship without water on deck at the specified loading condition but not higher than $6\sqrt{h_s}$ and with $\gamma = 1$. 

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3.2 The model should be free to drift and placed in beam seas (90° heading) with the damage hole facing the oncoming waves. The model should not be restrained in a manner to resist capsize. If the ship is upright in flooded condition, 1° of heel towards the damage should be given.

3.3 At least 5 experiments for each peak period should be carried out. The test period for each run shall be of such duration that a stationary state has been reached but should be run for not less than 30 min in full-scale time. A different wave realisation train should be used for each test.

3.4 If none of the experiments result in final inclination towards the damage, the experiments should be repeated with 5 runs at each of the two specified wave conditions or, alternatively, the model should be given an additional 1° angle of heel towards the damage and the experiment repeated with 2 runs at each of the two specified wave conditions. The purpose of these additional experiments is to demonstrate, in the best possible way, survival capability against capsize in both directions.

3.5 The tests are to be carried out for the following damage cases:

3.5.1 the worst damage case with regard to the area under the GZ curve according to the Safety at Sea Convention; and

3.5.2 the worst midship damage case with regard to the residual freeboard in the midship area if required by 2.1.

4. Survival criteria

The ship should be considered as surviving if a stationary state is reached for the successive test runs as required in 3.3, provided that angles of roll of more than 30° against the vertical axis, occurring more frequently than in 20% of the rolling cycles or steady heel greater than 20° should be taken as capsizing events even if a stationary state is reached.

5. Test approval

5.1 Proposals for model test programmes should be submitted to the host State Administration to be approved in advance. It should also be borne in mind that lesser cases of damage may create a worst-case scenario.

5.2 The test should be documented by means of a report and a video or other visual record containing all relevant information on the ship and test results.
ANNEX II
INDICATIVE GUIDELINES TO NATIONAL ADMINISTRATIONS
(as referred to in Article 6.(3))

PART I
Application

In line with the provisions of Article 6.(3), these guidelines shall be used by the national administrations of Member States in the application of the specific stability requirements set out in Annex I, in so far this is practicable and compatible with the design of the ship in question. The paragraph numbers appearing below correspond to those in Annex I.

Para 1

As a first step all ro-ro passenger ships referred to in Article 3 (1) must comply with the “SOLAS ‘90” standard of residual stability as it applies to all passenger ships constructed on or after 29 April 1990. It is the application of this requirement that defines the residual freeboard $f_r$, necessary for the calculations required in paragraph 1.1.

Para 1.1

1. This paragraph addresses the application of a hypothetical amount of water accumulated on the bulkhead (ro-ro) deck. The water is assumed to have entered the deck via a damage opening. This paragraph requires that the vessel in addition to complying with the full requirements of the SOLAS ’90 further complies with that part of the SOLAS ’90 criteria contained in paragraphs 2.3 to 2.3.4. of regulation 8 of Chapter II-1 Part B of SOLAS with the defined amount of water on deck. For this calculation no other requirements of Chapter II-1 regulation 8 need be taken into account. For example the vessel does not, for this calculation, need to comply with the requirements for the angles of equilibrium or non-submergence of the margin line.

2. The accumulated water is added as a liquid load with one common surface inside all compartments which are assumed flooded on the car deck. The height ($h_w$) of water on deck is dependent on the residual freeboard ($f_r$) after damage, and is measured in way of the damage (see fig 1). The residual freeboard, is the minimum distance between the damaged ro-ro deck and the final waterline (after equalisation measures if any have been taken) in way of the assumed damage after examining all possible damage scenarios in determining the compliance with SOLAS ’90 as required in para 1 of Annex I. No account should be taken of the effect of the hypothetical volume of water assumed to have accumulated on the damaged ro-ro deck when calculating $f_r$.

3. If $f_r$ is 2.0m or more, no water is assumed to accumulate on the ro-ro deck. If $f_r$ is 0.3m or less, then height $h_w$ is assumed to be 0.5 metres. Intermediate heights of water are obtained by linear interpolation (see fig 2).

Para 1.2

Means for drainage of water can only be considered as effective if these means are of a capacity to prevent large amounts of water from accumulating on the deck ie many thousand
of tonnes per hour which is far beyond the capacities fitted at the time of the adoption of these regulations. Such high efficiency drainage systems may be developed and approved in the future (based on guidelines to be developed by the International Maritime Organisation)

Para 1.3

1. The amount of assumed accumulated water-on-deck may, in addition to any reduction in accordance with paragraph 1.1, be reduced for operations in geographically defined restricted areas. These areas are designated in accordance with the significant wave height (hs) defining the area in line with the provisions of Article 5.

2. If the significant wave height (hs), in the area concerned, is 1.5m or less then no additional water is assumed to accumulate on the damaged ro-ro deck. If the significant wave height in the area concerned is 4.0m or more then the height of the assumed accumulated water shall be the value calculated in accordance with paragraph 1.1. Intermediate values to be determined by linear interpolation (see fig 3).

3. The height hw is kept constant, therefore the amount of added water is variable as it is dependent upon the heeling angle and whether at any particular heeling angle the deck edge is immersed or not. (see fig 4). It should be noted that the assumed permeability of the car deck spaces is to be taken as 90% (MSC/Circ.649 refers), whereas other assumed flooded spaces permeabilities are to be those prescribed in SOLAS.

4. If the calculations to demonstrate compliance with the Directive relate to a significant wave height less than 4.0m that restricting significant wave height must be recorded on the vessel’s passenger ship safety certificate.

Para 1.4 / 1.5

As an alternative to complying with the new stability requirements in paragraphs 1.1 or 1.3 an Administration may accept proof of compliance via model tests. The model test requirements are detailed in the Appendix to Annex I. Guidance notes on the model tests are contained in part II of this Annex.

Para 1.6

Conventionally derived SOLAS ’90 limiting operational curve(s) (KG or GM) may not remain applicable in cases where “water on deck” is assumed under the terms of the Directive and it may be necessary to determine revised limiting curve(s) which take into account the effects of this added water. To this effect sufficient calculations corresponding to an adequate number of operational draughts and trims must be carried out.

Note: Revised limiting operational KG/GM Curves may be derived by iteration, whereby the minimum excess GM resulting from damage stability calculations with water on deck is added to the input KG (or deducted from the GM) used to determine the damaged freeboards (f), upon which the quantities of water on deck are based, this process being repeated until the excess GM becomes negligible.

It is anticipated that operators would begin such an iteration with the maximum KG/minimum GM which could reasonably be sustained in service and would seek to manipulate the
resulting deck bulkhead arrangement to minimise the excess GM derived from damage stability calculations with water on deck.

Para 2.1

As for conventional SOLAS damage requirements bulkheads inboard of the B/5 line are considered intact in the event of side collision damage.

Para 2.2

If side structural sponsons are fitted to enable compliance with this regulation, and as a consequence there is an increase in the breadth (B) of the ship and hence the vessel’s B/5 distance from the ship’s side, such modification shall not cause the relocation of any existing structural parts or any existing penetrations of the main transverse watertight bulkheads below the bulkhead deck. (see fig 5)

Para 2.3

1. Transverse or longitudinal bulkheads/barriers which are fitted and taken into account to confine the movement of assumed accumulated water on the damaged ro-ro deck need not be strictly “watertight”. Small amounts of leakage may be permitted subject to the drainage provisions being capable of preventing an accumulation of water on the “other side” of the bulkhead/barrier. In such cases where scuppers become inoperative as a result of a loss of positive difference of water levels other means of passive drainage must be provided.

2. The height (B_h) of transverse and longitudinal bulkheads/barriers shall be not less than (8 x h_w) metres, where h_w is the height of the accumulated water as calculated by application of the residual freeboard and significant wave height (paras 1.1. and 1.3. refers). However in no case is the height of the bulkhead/barrier to be less than the greatest of:

   a) 2.2 metres; or

   b) the height between the bulkhead deck and the lower point of the underside structure of the intermediate or hanging car decks, when these are in their lowered position. It should be noted that any gaps between the top edge of the bulkhead and the underside of the plating must be “plated-in” in the transverse or longitudinal direction as appropriate. (see fig 6).

Bulkheads/barriers with a height less than that specified above, may be accepted if model tests are carried out in accordance with Part II of this Annex to confirm that the alternative design ensures appropriate standard of survivability. Care needs to be taken when fixing the height of the bulkhead/barrier such that the height shall also be sufficient to prevent progressive flooding within the required stability range. This range is not to be prejudiced by model tests.

Note: The range may be reduced to 10 degrees provided the corresponding area under the curve is increased (MSC 64/22 refers)
Para 2.5.1

The area “A” relates to permanent openings. It should be noted that the “freeing ports” option is not suitable for ships which require the buoyancy of the whole or part of the superstructure in order to meet the criteria. The requirement is that the freeing ports shall be fitted with closing flaps to prevent water entering, but allowing water to drain.

These flaps must not rely on active means. They must be self-operating and it must be shown that they do not restrict outflow to a significant degree. Any significant efficiency reduction must be compensated by the fitting of additional openings so that the required area is maintained.

Para 2.5.2

For the freeing ports to be considered effective the minimum distance from the lower edge of the freeing port to the damaged waterline shall be at least 1.0m. The calculation of the minimum distance shall not take into account the effect of any additional water on deck. (see fig 7)

Para 2.5.3

Freeing ports must be sited as low as possible in the side bulwark or shell plating. The lower edge of the freeing port opening must be no higher than 2cm above the bulkhead deck and the upper edge of the opening no higher than 0.6m. (see fig 8)

Note: Spaces to which paragraph 2.5 applies, ie those spaces fitted with freeing ports or similar openings, shall not be included as intact spaces in the derivation of the intact and damage stability curves.

Para 2.6

1. The statutory extent of damage is to be applied along the length of the ship. Depending on the subdivision standard the damage may not affect any bulkhead or may only affect a bulkhead below the bulkhead deck or only bulkhead above the bulkhead deck or various combinations.

2. All transverse and longitudinal bulkheads/barriers which constrain the assumed accumulated amount of water must be in place and secured at all times when the ship is at sea.

3. In those cases where the transverse bulkhead/barrier is damaged the accumulated water-on-deck shall have a common surface level on both sides of the damaged bulkhead/barrier at the height $h_w$ (see fig 9).
PART II
MODEL TESTING

The purpose of these guidelines is to ensure uniformity in the methods employed in the construction and verification of the model as well as in the undertaking and analyses of the model tests, while appreciating that available facilities and costs will affect in some way this uniformity.

The content of paragraph 1 of the Appendix to Annex I is self explanatory.

Paragraph 2 – Ship model

2.1 The material of which the model is made is not important in itself, provided that the model both in the intact and damaged condition is sufficiently rigid to ensure that its hydrostatic properties are the same as those of the actual ship and also that the flexural response of the hull in waves is negligible.

It is also important to ensure that the damaged compartments are modelled as accurately as practicably possible to ensure that the correct volume of flood water is represented.

Since ingress of water (even small amounts) into the intact parts of the model will affect its behaviour, measures must be taken that this ingress does not occur.

2.2 Model particulars

.1 In recognising that scale effects play an important role in the behaviour of the model during tests, it is important to ensure that these effects are minimised as much as practically possible. The model should be as large as possible since details of damaged compartments are easier constructed in larger models and the scale effects are reduced. It is therefore recommended that the model length is not less than that corresponding to 1:40 scale. However it is required that the model is not less than 3 meters long at the subdivision load line.

.2(a) The model in way of the assumed damages must be as thin as practically possible to ensure that the amount of flood water and its centre of gravity is adequately represented. It is recognised that it may not be possible for the model hull and the elements of primary and secondary subdivision in way of the damage to be constructed with sufficient detail and due to these constructional limitations it may not be possible to calculate accurately the assumed permeability of the space.

.2(b) It has been found during tests that the vertical extent of the model can affect the results when tested dynamically. It is therefore required that the ship is modelled to at least three super structure standard heights above the bulkhead (freeboard) deck so that the large waves of the wave train do not break over the model.

.2(c) It is important that not only the draughts in the intact condition are verified, but also that the draughts of the damaged model are accurately measured for correlation with those derived from the damaged stability calculation. After
measuring the damaged draughts it may be found necessary to make adjustments to the permeability of the damaged compartment by either introducing intact volumes or by adding weights. However it is also important to ensure that the centre of gravity of the flood water is accurately represented. In this case any adjustments made must err on the side of safety.

.2(d) If the model is required to be fitted with barriers on deck and the barriers are less than the height required as per paragraph 2.3 of Annex 1 of this Directive the model is to be fitted with CCTV so that any “splashing over” and any accumulation of water on the undamaged area of the deck can be monitored. In this case a video recording of the event is to form part of the tests records.

.3 In order to ensure that the model motion characteristics represent those of the actual ship it is important that the model is both inclined and rolled in the intact condition so that the intact GM and the mass distribution are verified.

The transverse radius of gyration of the actual ship is not to be taken as being greater than 0.4B and the longitudinal radius of gyration is not to be taken as being more than 0.25L.

The transverse rolling period of the model is to be obtained by:

\[
\frac{2\pi X 0.4B}{\sqrt{gGM_0}}
\]

Where

GM: metacentric height of the actual (intact) ship

\(g\): acceleration due to gravity

\(\lambda\): scale of model

B: breadth of actual ship

Note

While inclining and rolling the model in the damage condition may be accepted as a check for the purpose of verifying the residual stability curve such tests are not to be accepted in lieu of the intact tests.

Nevertheless the damaged model must be rolled in order to obtain the rolling period required to perform the tests as per paragraph 3.1.2

.4 The contents of this paragraph are self explanatory. It is assumed that the ventilators of the damage compartment of the actual ship are adequate for unhindered flooding and movement of the flood water. However in trying to scale down the ventilating arrangements of the actual ship undesirable scale effects may be introduced. In order to ensure that these do not occur it is recommended to construct the ventilating arrangements to a larger scale than that of the model, ensuring that this does not affect the flow of water on the car deck.
5.2 The isosceles triangular profile of the prismatic damage shape is that corresponding to the load waterline. Additionally in cases where side casings of width less than B/5 are fitted and in order to avoid any possible scale effects, the damage length in way of the side casings must not be less than (2) metres.

**Paragraph 3 – Procedure for experiments**

3.1 – Wave Spectra

The JONSWAP spectrum it to be used as this describes fetch and duration limited seas which correspond to the majority of the conditions world-wide. In this respect it is important that not only the peak period of the wave train is verified but also that the zero crossing period is correct.

1. Corresponding to a peak period of $4\sqrt{h}$ and given that the enhancement factor $\gamma$ is 3.3, the zero crossing period is not to be greater than:

$$\{T_p/(1.20 \text{ to } 1.28) \} +/- 5\%$$

2. The zero crossing period corresponding to a peak period equal to the rolling period of the damaged model and given that the factor $\gamma$ is to be 1, is not to be greater than:

$$\{T_p/(1.3 \text{ to } 1.4) \} +/- 5\% ;$$

noting that if the rolling period of the damaged model is greater than $6\sqrt{h}$, the peak period is to be limited to $6\sqrt{h}$.

**Note**

It has been found that it is not practical to set limits for zero crossing periods of the model wave spectra according to the nominal values of the mathematical formulae. Therefore an error margin of 5% is allowed.

It is required that for every test run the wave spectrum is recorded and documented. Measurements for this recording are to be taken in the immediate vicinity of the model (but not on the leeside) – see figure a below – and also near the wave-making machine. It is also required that the model is instrumented so that its motions (roll, heave and pitch) as well as its attitude (heel, sinkage and trim) are monitored and recorded though out the test.

The “near the model” wave measuring probe to be positioned either on arc A or arc B (*Figure a*).
3.2., 3.3., 3.4

The contents of these paragraphs are considered self explanatory.

3.5 – Simulated damages

Extensive research carried out for the purpose of developing appropriate criteria for new vessels has clearly shown that in addition to the GM and freeboard being important parameters in the survivability of passenger ships, the area under the residual stability curve up to the angle of maximum GZ is also another major factor. Consequently in choosing the worst SOLAS damage for compliance with the requirement of paragraph 3.5.1 the worst damage is to be taken as that which gives the least area under the residual stability curve up to the angle of the maximum GZ.

**Paragraph 4 – Survival criteria**

The contents of this paragraph are considered self explanatory.

**Paragraph 5 – Test approval**

The following documents are to be part of the report to the Administration:

(a) damage stability calculations for worst SOLAS and mid-ship damage (if different);
(b) general arrangement drawing of the model together with details of construction and instrumentation;
(c) inclining experiment and rolling test reports;
(d) calculations of actual ship and model rolling periods; and
(e) nominal and measured wave spectra (near the wave-making machine and near the model respectively)
(f) representative record of model motions, attitude and drift
(g) relevant video recordings.

**Note**

All tests must be witnessed by the Administration.
Figures referred to in Annex 2
(Indicative Guidelines to National Administrations)

Figure 1
1. If $f_r \geq 2.0$ metres, height of water on deck ($h_w$) = 0.0 metres

2. If $f_r \leq 0.3$ metres, height of water on deck ($h_w$) = 0.5 metres

Figure 2

1. If $h_s \geq 4.0$ metres, height of water on deck is calculated as per fig 3

2. If $h_s \leq 1.5$ metres, height of water on deck ($h_w$) = 0.0 metres

For example

If $f_r = 1.15$ metres and $h_s = 2.75$ metres, Height $h_w = 0.125$ metres

Figure 3
Figure 4
Figure 5
Ship without hanging car decks

Example 1

Height of water on deck = 0.25 metres

Minimum required height of barrier = 2.2 metres

Ship with hanging deck (in way of the barrier)

Example 2

Height of water on deck (hw) = 0.25 metres

Minimum required height of barrier = x

Figure 6
minimum required freeboard to freeing port = 1.0 m

Figure 7

Figure 8
Deck edge not immersed

Deck edge immersed

Figure 9
IMPACT ASSESSMENT FORM
THE IMPACT OF THE PROPOSAL ON BUSINESS WITH SPECIAL REFERENCE TO SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs)

TITLE OF PROPOSAL

PROPOSAL FOR A DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON SPECIFIC STABILITY REQUIREMENTS FOR RO-RO PASSENGER SHIPS.

DOCUMENT REFERENCE NUMBER


THE PROPOSAL

1. Taking account of the principle of subsidiarity, why is Community legislation necessary in this area and what are its main aims?

The obligations of the Community in this context are the improvement of safety in maritime transport as provided for in Article 80(2) of the Treaty. The objective of the action proposed is the establishment of harmonised safety requirements regarding the stability of ro-ro passenger ships operating on international voyages from/to EU ports.

Referring to the principle of subsidiarity, it will be the responsibility of the Community to ensure a framework of rules providing a harmonised level of safety for passenger ships operating under the same conditions throughout the EU. The responsibility of the Member States is to adopt within their own national legislation measures which will ensure the effective application of the Directive.

THE IMPACT ON BUSINESS

2. Who will be affected by the proposal?

– which sectors of business

– which sizes of business (what is the concentration of small and medium-sized firms)

– are there particular geographical areas of the Community where these businesses are found

The business sector which will be affected by this proposal are entities operating ro-ro passenger ships to and from Community ports. A vast majority of passenger ships sailing in Community waters are operated by medium-sized and large enterprises. Taking into account that the specific stability requirements introduced by this
Directive are already in place in seven northern EU Member States which apply the Stockholm Agreement, the proposal will have in practise implications only for the companies operating such type of vessels in the Mediterranean sea. Since the 70% of the ro-ro passenger ships operating in this area are under the Greek and the Italian flag, it is expected that there will be economic impact mainly for companies operating vessels under these two flags. Nevertheless, the large majority of ro-ro passenger ships trading in the south European waters operate in domestic voyages, and thus outside the scope of this Directive. Their case is addressed by the proposal revising Council Directive 98/18/EC. It has generally been noted that following the introduction of the Stockholm Agreement, new ro-ro passenger vessels are built with the aim to satisfy the specific stability requirements even when these are built for trading in the South EU waters.

3. What will business have to do to comply with the proposal?

Member States shall bring into force the laws, regulations and administrative procedures so that operators of ro-ro passenger ships comply with the specific stability requirements. The application of these requirements will oblige the operators of existing ships (those trading in the areas under the Directive) to proceed with structural modifications on these ships in order to upgrade them up to the level established by this Directive. A first step for business will be to subject their ships to the model test of compliance in order to check the need for an upgrade.

4. What economic effects is the proposal likely to have?

- on employment
- on investment and the creation of new businesses
- on the competitiveness of businesses

No impact is expected on employment following the introduction of the requirements of this Directive. The phasing-in timetable for existing ships, provided for in the Directive, will give sufficient time to the shipping companies to upgrade their ships. Taking into account the running SOLAS upgrade time-table, the Directive gives a sufficient period to comply with the additional stability requirements.

The analysis conducted by the Commission demonstrates that the introduction of the SA in the North of Europe took place without particular trouble for the industry or the contracting governments. Based on a sample of 82 vessels, out of a total of 140 that needed to comply with the Agreement, it appears that 36% of the vessels in that sample did not need any upgrade. Furthermore, 69% of the total 140 vessels were upgraded for less than 1 million EURO. The estimated total cost of upgrade was around 85 mio EURO. However it is important to note that most of that cost related to the accelerated compliance with SOLAS 90 standards (a necessary step before compliance with the Stockholm Agreement) rather than just to compliance with the Agreement as such.

Given the common value of significant wave heights in the Southern EU waters is around 2,5 metres, the modification cost of the South European fleet for compliance with the provisions of the SA will be approximately the same as the associated cost.
for compliance with the requirements of the SOLAS 90 two compartment standard\textsuperscript{39}. Since full compliance with SOLAS Regulations is to take place by 2010, on the basis of the IMO timetable (international trades) and of Directive 98/18/CE (domestic EU trades) the industry should have already planned to invest in the coming years in the upgrade of the vessels concerned. The study states that 264 vessels trading in the South European waters (international and domestic) will be affected from the SOLAS upgrade and that the cost of compliance will be among 106 and 250 million EURO (these figures do not take into account possible removals from service of aged ro-ro ships). As already mentioned, compliance of these ships with the specific stability requirements set out in the Stockholm Agreement will not increase their SOLAS compliance cost in a prohibitive way.

It appears therefore that the application of the SA stability requirements to the South European ro-ro passenger vessels will offer a uniformity of stability requirements and an increased level throughout the EU, without increasing substantially the economic effort of the affected part of the industry, which has to comply anyway with the SOLAS 90 standard.

The proposal is likely to have a beneficial impact on the competitive position of the business, since it will harmonise the stability standards applied to ro-ro passenger vessels trading in the EU creating a global market which will make possible the operation of these ships to all EU trades where the same significant wave height conditions are met. By establishing a harmonised safety regime for all ro-ro passenger ships serving EU ports, regardless of flag, a level playing field will be created for all operators involved, minimising the risks for distortion of competition by operators trying to gain a competitive edge by economising on the safety standard.

5. Does the proposal contain measures to take account of the specific situation of small and medium-sized firms (reduced or different requirements etc)?

Fulfilling the requirements of the proposal should not constitute insurmountable financial burdens for the affected companies. The experience from the introduction of these standards in the Northern European waters demonstrated that the financial implications for the industry were reasonable.

**Consultation**

6. List the organisations which have been consulted about the proposal and outline their main views.

The Commission held a consultation meeting on 25 October with parties interested on this issue, which was attended by representatives of shipowners (ECSA, ICS, BIMCO), seafarers (ETF), classification societies (IACS), shipbuilders (CESA) and disabled (European Disabilities Forum - EDF).

The proposed action was met with scepticism by the shipowner representatives, particularly in view of the cost implications this will have for existing ships. These

\textsuperscript{39} The SOLAS 90 two compartment standard establishes that the ship can survive without capsizing with two main compartments flooded following damage.
representatives felt that general weather conditions in the South did not justify the generalisation by EU Law of the regional requirements defined in the Stockholm Agreement. However, the measure was clearly supported by the seafarers representatives and the users organisation present at the meeting on the grounds that it will offer additional safety to the travelling public and the crew. These two organisations found essential that ships operating under similar significant wave height conditions had to comply with the same safety standard.
Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

for passenger ships
EXPLANATORY MEMORANDUM

1. BACKGROUND AND OBJECTIVES

In order to ensure harmonisation of safety regulations applying to passenger ferries operating within the EU, the European Commission in 1996 proposed a Directive to apply rules equivalent to those applicable at the international level in a harmonised manner also to the domestic trade. Council Directive 98/18/EC was subsequently adopted on 17 March 1998, and entered into force the same year. The rules included in Annex I to the Directive translate the relevant international instruments into safety requirements for vessels operating on domestic services. These requirements apply to all types of domestic passenger ferries, whilst taking into account their size, age and the characteristics of the sea area in which they are licensed to operate.

Although a relatively recently adopted Directive, the European Commission considers that certain provisions contained therein should be simplified or updated in order to provide sufficient protection for passengers on domestic journeys in the EU Member States. This Directive, therefore proposes to amend Council Directive 98/18/EC in the following way, to:

- update the Directive taking into account developments of international conventions and codes for maritime safety, notably the 2000 High Speed Craft Code,
- simplify and improve the procedure for the definition and publication of sea areas, a procedure that is crucial for the implementation of this directive, since the safety requirements applying to a specific vessel depend on the sea area in which it operates,
- introduce specific stability requirements for certain categories of ro-ro passenger ships operating on domestic services, equivalent to those in the proposed Directive on specific stability requirements for ro-ro passenger ships engaged on international voyages, and phase out ro-ro passenger ships which are not upgraded to comply with such stability requirements,
- require that Member States endeavour to make all its passenger vessels, regardless of size, age and the sea area in which they operate, safe and accessible for passengers with reduced mobility. This is in line with other proposals by the Commission to render other modes of transport accessible and safe for such passengers,
- remove the derogation for Greece, thus simplifying the Directive given the marginal impact of the derogation.

2. JUSTIFICATION OF THE PROPOSED MEASURES

The objective of the proposed measure is to amend existing Council Directive 98/18/EC. The justification is multi-fold. Despite being a relatively recently adopted Directive, certain problems related to its implementation have already been identified. The principal problem with the Directive at Community level, relates to
the difficulty of verifying implementation, mainly since the current procedure for publication of sea areas is not practicable. This short-coming has an implication at Community level, and for all Member States, since the implementation of Directive 98/18/EC cannot be verified, without having a proper and workable arrangement in place for the designation and publication of sea areas.

It is furthermore justified to ensure that the Directive is made flexible to update certain articles in relation to developments at international level, in particular in relation to the safety of high speed crafts.

The introduction of more specific stability requirements for ro-ro passenger ships operating on domestic services is also justified, to improve safety and to ensure an equivalent level of safety between international and domestic services.

The introduction of safety guidelines for passengers with reduced mobility is in line with the principle introduced by the Amsterdam Treaty on combating discrimination on grounds of, among other things, disability and age.

Finally, it should be noted that certain provisions have been introduced that leave a large degree of flexibility to the Member States in line with the principle of subsidiarity, notably as regards safety and access requirements for passengers with reduced mobility.

3. CONTENT OF THE PROPOSAL

The proposal contains two articles making modifications to the existing articles of Council Directive 98/18/EC, and articles to ensure the applicability of such modifications.

4. SPECIFIC CONSIDERATIONS

4.1. Definitions (Article 1.1)

New definition 2(w) on “persons with reduced mobility” is introduced with reference to proposed new article 6b. The definition used is that of Directive 2001/85/EC of the European Parliament and of the Council of 20 November 2001, relating to special provisions for vehicles used for the carriage of passenger comprising more than eight seats in addition to the driver’s seat, and amending Directives 70/156/EEC and 97/27/EC. This definition, recently agreed by Council and Parliament, has been found appropriate by the Commission for this Directive also, as it relates to safety and access requirements for a particular mode of public transport for passengers with reduced mobility. See also paragraph 4.6.

4.2. Procedure for the publication of sea areas (Article 1.2)

The Commission proposes a new simplified procedure for the establishment, notification and publication of a list of the sea areas A, B, C and D, which determine the specific safety requirements that apply to ships operating in each particular area.

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The modification is prompted by the problems encountered in the implementation of Directive 98/18/EC. It is crucial to modify this procedure to facilitate implementation by Member States and to monitor implementation at Community level.

Furthermore the Commission proposes that the notification of sea areas to the Commission, in accordance with the procedure laid down in article 9, should be simplified.

The procedure proposed for the publication introduces more flexibility and transparency for the operators at Member State and Community level.

4.3. **Ending the derogation for Greek passenger ships (Article 2)**

Directive 98/18/EC includes a derogation for passenger vessels trading on domestic services in Greece only. Given the limited practical implication of this derogation, the Commission proposes to delete this derogation from the Directive with effect from 1.1.2005, in order to simplify the Directive.

4.4. **Stability requirements and phasing-out age (Article 1.3)**

The Commission’s proposal introduces specific stability requirements for ro-ro passenger ships engaged in international voyages to/from EU ports. This would ensure an increased level of safety of ro-ro passenger vessels operating on the above routes, by 1 October 2010 at the latest.

Taking into account that ro-ro passenger ships encounter similar sea conditions in domestic voyages as in international voyages and in order to achieve the same level of safety for ships operating in different sea areas under the same sea conditions, the Commission proposes that domestic ro-ro passenger ships should also comply with specific stability requirements. The specific stability requirements shall apply to all new ro-ro passenger ships of classes A, B and C as from 1 October 2004. For new ro-ro passenger ships of class D, the application of the specific stability requirements is not justified, due to the restricted operational conditions applying to these ships. However, taking into account the difficulties that can be encountered in upgrading existing vessels of classes A and B, the Commission proposes to introduce as an alternative the possibility of phasing out such vessels at the age of 30 years if the specific stability requirements cannot be complied with. The same phasing out possibility shall apply to existing ro-ro passenger ships of classes C and D, unless they fully comply with the stability requirements set out in paragraph II-1/B/8 of Annex I of the Directive. This means full compliance of these vessels with the SOLAS 90 stability requirements, an obligation from which they are presently exempted.


Directive 98/18/EC currently applies the High Speed Craft Code(HSC Code) as contained in IMO Maritime Safety Committee Resolution MSC 36(63) of 20 May 1994 in full to all High speed craft operating on domestic services. On 5 December 2000, the 2000 HSC Code was adopted, which will apply for all new vessels whose keels are laid or which are at a similar stage of construction on or after 1 July 2002. The HSC Code 2000 does not replace the previous code for vessels constructed before that date, but applies to new vessels only.
The Commission therefore proposes to amend Article 8(a) in order to allow the HSC Code 2000 to be made applicable through Directive 98/18/EC in a similar manner to the 1994 HSC Code, through the comitology procedure. This is in full accordance with the principle included in Directive 98/18/EC as regards Annex I and definitions in Article 2 in relation to International Conventions.

4.6. Introducing safety and access requirements for passengers with reduced mobility (Article 1.1, 1.3, 1.4, 1.5).

The Commission proposes to introduce specific safety requirements for persons with reduced mobility, who can make up to 30% of the population, and hence a large proportion of potential passengers. The measures proposed relate equally to the safety of and access to passenger ships for this group of passengers. The importance of all passengers, with or without reduced mobility, being guaranteed the same level of safety is crucial.

Council Directives 1999/35/EC and 98/41/EC cover a rather limited area of safety and accessibility for people with reduced mobility since they concern specific services and assistance, and not necessarily general information about the ship and safety arrangements.

The mechanism proposed is that guidelines are included in a new Annex III, which shall apply to all ships and craft operating on domestic services. Because some modifications to be retrofitted to existing ships may be unreasonable costly, the guidelines shall apply to existing ships and crafts as far as reasonable and practicable. Member States shall furthermore develop national action plans for how the existing fleet of passenger vessels shall be upgraded to comply with the guidelines in Annex III. These guidelines are in line with the International Maritime Organisation’s Maritime Safety Committee Circular 735 (MSC/Circ.735) of 24 June 1996 entitled “Recommendation on the design and operation of passenger ships to respond to elderly and disabled persons needs”.

In this process, it is crucial that Member States consult organisations representative of persons with reduced mobility, to ensure that the measures taken are reasonable and acceptable, and will offer a real solution to the current problems encountered on board passenger ships.

The Member States are requested to communicate their national action plans on existing ships and report to the Commission on implementation of the article as regards new ships, new and existing high speed craft, as well as those existing ships certified to carry more than 400 passengers.

It is furthermore proposed that Annexes II and III be amended through comitology procedure in the light of experience, notably that gained by Member States in the process of implementing this Directive.

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4.7. Modifications to the mandate of the Committee for adaptations (Article 1.4)

The Commission proposes to modify the mandate of the Committee as outlined in Article 8 of Directive 98/18/EC, for the following purposes:

– Article 8(a)(iii) is added to enable revision of the articles of the Directive relating to the HSC Code as outlined in paragraph 4.5.

– Article 8(c) is added to give the Committee the mandate to modify Annexes II and III as outlined in paragraph 4.6.
Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL


THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 80(2) thereof,

Having regard to the proposal from the Commission,

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

Having regard to the opinion of the Committee of the Regions,

Acting in accordance with the procedure laid down in Article 251 of the Treaty,

Whereas:

(1) Council Directive 98/18/EC of 17 March 1998 on safety rules and standards for passenger ships introduces a uniform level of safety of life and property on new and existing passenger ships and high speed craft, when both categories of ships and craft are engaged on domestic voyages, and lays down procedures for negotiation at international level with a view to a harmonisation of the rules for passenger ships engaged on international voyages.

(2) The definition of sea areas is crucial to determine the application of Directive 98/18/EC to different classes of passenger ships. The Directive includes a procedure for the publication of lists of sea areas that has proved difficult to implement. It is therefore necessary to establish a functional and transparent procedure, enabling effective monitoring of the implementation of the Directive.

(3) With a view to harmonising the level of safety applying to passenger ships across the Community, the derogation given to Greece in relation to the timetable for the application of the safety requirements should be deleted.

43 OJC, p.
44 OJC, p.
45 OJC, p.
46 OJC, p.
47 OJ L 144, 15.5.1998, p. 1
Directive [yyyy/xx/EC on specific stability requirements for ro-ro passenger ships\[^{48}\]] introduces strengthened stability requirements for ro-ro passenger vessels operating on international services to and from Community ports, and this enhanced measure should also apply to such vessels operating on domestic services under the same sea conditions. Failure to apply such stability requirements should be ground for phasing out ro-ro passenger ships after certain years of operation.

It is necessary to take account of changes that have been made to relevant international instruments, such as the International Maritime Organisation (IMO) conventions, protocols, codes and resolutions, and to do so in a flexible and rapid manner.

By virtue of Directive 98/18/EC, the International Code for Safety of High Speed Craft contained in IMO Maritime Safety Committee Resolution MSC 36 (63) of 20 May 1994 applies to all high speed craft operating on domestic services. The IMO has adopted a new high speed craft code, the International Code for Safety of High Speed Craft, 2000 (2000 HSC Code), contained in IMO Maritime Safety Committee Resolution MSC 97(73) of 5 December 2000, applying to all high speed craft constructed on or after 1 July 2002. It is important to ensure that Directive 98/18/EC can be updated in a flexible manner to apply such developments at the international level, also to high speed craft operating on domestic services.

It is important to have regard to the level of safety and access guaranteed to persons with reduced mobility when travelling on passenger ships and high speed craft on domestic services in the Member States.

Directive 98/18/EC should therefore be amended accordingly,

\begin{itemize}
\item[7)] It is important to have regard to the level of safety and access guaranteed to persons with reduced mobility when travelling on passenger ships and high speed craft on domestic services in the Member States.
\item[8)] Directive 98/18/EC should therefore be amended accordingly,
\end{itemize}

\textbf{HAVE ADOPTED THIS DIRECTIVE:}

\textit{Article 1}

Directive 98/18/EC is hereby amended as follows:

1) In Article 2 the following point is added:

\[w\] “persons with reduced mobility” means all people who have a difficulty when using public transport, such as disabled people (including people with sensory and intellectual impairments, and wheelchair users), people with limb impairments, people of small stature, people with heavy luggage, elderly people, pregnant women, people with shopping trolleys, and people with children (including children seated in push chairs)."

2) Article 4, paragraph 2 is replaced by the following:

\[2.\] Each Member State shall:

\[a\] establish and promptly update a list of sea areas under its jurisdiction, delimiting the zones for the all-year-round and, where appropriate, restricted periodical operation of the classes of ships, using the criteria for classes set out in paragraph 1;
(b) publish the list in a public database available on the Internet site of the competent maritime authority;

(c) notify to the Commission the location of such information, and when modifications are made to the list.”

3) Articles 6a and 6b are inserted:

“Article 6a
Stability requirements and phasing-out of ro-ro passenger ships

1. All ro-ro passenger ships of Classes A, B, and C, the keel of which is laid or which are at a similar stage of construction on or after 1 October 2004 shall comply with the specific stability requirements set out in Directive [yyyy/xx/EC].

2. All ro-ro passenger ships of Classes A and B, the keel of which is laid or which are at a similar stage of construction before 1 October 2004 shall comply with the specific stability requirements set out in Directive [yyyy/xx/EC] by 1 October 2010, unless they are phased out on that date or on a later date on which they reach the age of 30 years but in any case not later than 1 January 2015.

3. All ro-ro passenger ships of Classes C and D, the keel of which is laid or which are at a similar stage of construction before 1 October 2004 shall comply with the provisions of paragraph II-1/B/8 of Annex I by 1 October 2010, unless they are phased out on that date or on a later date on which they reach the age of 30 years but in any case not later than 1 January 2015."

“Article 6b
Safety requirements for persons with reduced mobility

1. Member States shall take appropriate measures, based on the guidelines in Annex III to enable persons with reduced mobility to have safe access to all passenger ships of Classes A, B, C and D and to all high speed passenger craft, the keel of which is laid or which are at a similar stage of construction on or after 1 October 2004.

2. Member States shall co-operate with and consult organisations representing persons with reduced mobility on the implementation of the guidelines included in Annex III.

3. For the purpose of modification of passenger ships of Classes A, B C and D and high speed craft, the keel of which is laid or which are at a similar stage of construction before 1 October 2004, Member States shall apply the guidelines in Annex III as far as reasonable and practicable in economic terms.

Member States shall draw up a national action plan on how the guidelines shall be applied to such ships and craft. They shall communicate that plan to the Commission.

4. Member States shall report to the Commission on the implementation of this Article as regards all passenger ships referred to in paragraph 1, passenger ships referred to in paragraph 3 certified to carry more than 400 passengers and all high speed crafts, before 1 October 2007.”
4) Article 8, is amended as follows:

(a) in point (a) the following subpoint is inserted:

“and

(iii) the provisions relating to the High Speed Craft Code, and subsequent amendments thereto, referred to in Articles 4 (3), 6 (4), 10 (3) and 11 (3).”

(b) the following point (c) is added:

"(c) Annexes II and III may be amended to improve the technical specifications, in the light of experience."

5) Annex III is added, as set out in the Annex.

Article 2

Point (g) of Article 6 (3) of Directive 98/18/EC is deleted with effect from 1 January 2005.

Article 3

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 1 January 2004 at the latest. They shall forthwith inform the Commission thereof.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

Article 4

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Communities.

Article 5

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President
ANNEX
"Annex III : Guidelines for safety requirements for passenger ships and high speed craft
for persons with reduced mobility

(as referred to in Article 6b)

1. Access to the ship

The ships should be constructed and equipped in such a way that a person with reduced mobility can embark and disembark easily and safely, either unassisted or by means of ramps, elevators or lifts. Directions to such access should be posted at the other accesses to the ship and at other appropriate locations throughout the ship.

2. Signs

Signs provided on a ship to aid passengers should be accessible and easy to read for persons with reduced mobility, and be positioned at key points.

3. Means to communicate messages

The operator should have the means onboard the vessel to visually and verbally provide announcements, such as regarding delays, schedule changes and on-board services, to persons with different forms of reduced mobility.

4. Alarm

Alarm/call buttons shall be available and accessible to passengers with reduced mobility.

5. Additional requirements ensuring mobility inside the ship

Handrails, corridors and passageways, doorways and doors shall accommodate the movement of a person in a wheelchair. Elevators, vehicle decks, passenger lounges, accommodation and washrooms shall be designed in order to be accessible in a reasonable and proportionate manner to persons with reduced mobility.'
IMPACT ASSESSMENT FORM

THE IMPACT OF THE PROPOSAL ON BUSINESS WITH SPECIAL REFERENCE TO SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs)

TITLE OF PROPOSAL


DOCUMENT REFERENCE NUMBER


THE PROPOSAL

1. Taking account of the principle of subsidiarity, why is Community legislation necessary in this area and what are its main aims?

The main aim of the proposal is to amend an existing Directive, in order to strengthen and simplify certain aspects of the Directive. Since the proposal is to revise an existing Directive, a Directive is the only possible form of Community measure.

THE IMPACT ON BUSINESS

2. Who will be affected by the proposal?

– which sectors of business

Shipping companies, operating domestic passenger ship services in the Member States.

– which sizes of business (what is the concentration of small and medium-sized firms)

A variety of sizes of companies will be affected, from companies owning one ship only to owners with much larger fleets.

– are there particular geographical areas of the Community where these businesses are found

In all EU Member States, apart from those that are landlocked. However, in principle all Member States are affected in their role as flag states, although some Member States have a more developed ferry service due to their geography.

3. What will business have to do to comply with the proposal?

Those sectors of business would have to undertake the necessary steps to comply with the national requirements on adapting existing ships to the specific stability
requirements laid down in Article 6a and to the Guidelines on safety requirements for passengers with reduced mobility in Annex III. It should however be noted that many business operators have already taken measures to this end.

4. **What economic effects is the proposal likely to have?**

   – **on employment**

   No economic effects on employment are foreseen.

   – **on investment and the creation of new businesses**

   Investment may be foreseen in relation to complying with the specific stability requirements in accordance with Article 6a. The phasing-in timetable for existing ships, provided for in the Directive, will give sufficient time to the shipping companies to upgrade their ships. Furthermore extra flexibility is introduced by the proposed phasing out scheme, which is based on the age of the ship and will run up to 2015. Some investment may also be foreseen in relation to the Guidelines on safety requirements for passengers with reduced mobility in Annex III, but it should be noted that some business operators have already taken measures to this end.

   – **on the competitiveness of businesses**

   The proposal is likely to have a beneficial impact on the competitive position of the business, since it will harmonise the stability standards applied to ro-ro passenger vessels trading in the EU creating a global market which will make possible the operation of these ships to all EU trades where the same wave height conditions are met. It will also have a positive economic effect on the competitiveness of business of those companies complying fully with the Guidelines on safety requirements for passengers with reduced mobility in Annex III, since they can attract a larger consumer group.

5. **Does the proposal contain measures to take account of the specific situation of small and medium-sized firms (reduced or different requirements etc)?**

   The proposal contains a specific requirement in relation to unreasonable costs that can create an unreasonable economic burden in relation to existing ships complying with the Guidelines on safety requirements for passengers with reduced mobility in Annex III.

**CONSULTATION**

6. **List the organisations which have been consulted about the proposal and outline their main views.**

   Organisations invited and present at the consultation meeting were:
   
   – The Baltic and International Maritime Council (BIMCO)
   – Committee of EU Shipbuilders Associations (CESA)
   – European Community Shipowners Association (ECSA)
– European Disability Forum (EDF)
– European Transport Workers’ Federation (ETF)
– International Association of Classification Societies (IACS)
– International Council on Shipping (ICS)

Outline of their main view:

No comments were made by stakeholders regarding ending the derogation for Greece.

The idea of gradually developing specific rules for improved safety and accessibility for passengers with reduced mobility was unanimously positively received among the stakeholders present.

The measure to apply the High Speed Craft Code 2000 to high speed craft operating on domestic services was welcomed by all stakeholders.

The proposal for a new procedure on the publication of the lists of sea areas (Article 4.2), received no objections from stakeholders.

Stakeholders were divided on the need for the introduction of additional stability requirements for ro-ro ferries.