



Council of the  
European Union

Brussels, 22 February 2016  
(OR. en)

6386/16

OMI 23  
MAR 59

#### COVER NOTE

---

From:	Secretary-General of the European Commission, signed by Mr Jordi AYET PUIGARNAU, Director
date of receipt:	22 February 2016
To:	Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of the European Union
No. Cion doc.:	SWD(2016) 42 final
Subject:	COMMISSION STAFF WORKING DOCUMENT For the Council Shipping Working party IMO – Union submission to be submitted to the 96th session of the Committee on Maritime Safety (MSC 96) of the IMO in London from 11 – 20 May 2016 concerning comments on proposed amendments to SOLAS Regulations II-1/6 and II-1/8-1

---

Delegations will find attached document SWD(2016) 42 final.

---

Encl.: SWD(2016) 42 final



Brussels, 22.2.2016  
SWD(2016) 42 final

**COMMISSION STAFF WORKING DOCUMENT**

**For the Council Shipping Working party**

**IMO – Union submission to be submitted to the 96th session of the Committee on Maritime Safety (MSC 96) of the IMO in London from 11 – 20 May 2016 concerning comments on proposed amendments to SOLAS Regulations II-1/6 and II-1/8-1**

**COMMISSION STAFF WORKING DOCUMENT**  
**For the Council Shipping Working party**

**IMO – Union submission to be submitted to the 96<sup>th</sup> session of the Committee on Maritime Safety (MSC 96) of the IMO in London from 11 – 20 May 2016 concerning comments on proposed amendments to SOLAS Regulations II-1/6 and II-1/8-1**

**PURPOSE**

The document in Annex contains a draft Union submission to the 96<sup>th</sup> session of the Committee on Maritime Safety (MSC96) of the IMO. It is hereby submitted to the appropriate technical body of the Council with a view to achieving agreement on transmission of the documents to the IMO prior to the required deadline of 8 March 2016<sup>1</sup>.

SOLAS regulation II-1/6 and II-1/8-1 on stability rules as amended covers both cargo and passenger ships and is incorporated in Annex I, Chapter II-1, Part B, point 8 of Directive 2009/45/EC on safety rules and standards for passenger ships, as amended, which applies to Class B, C, and D ships of 24 meters in length and above. At the same time, Article 6 of the same Directive requires that all Class A ships comply with SOLAS 1974 as amended. Therefore, the substance of the joint submission falls under EU exclusive competence.

---

<sup>1</sup> The submission of proposals or information papers to the IMO, on issues falling under external exclusive EU competence, are acts of external representation. Such submissions are to be made by an EU actor who can represent the Union externally under the Treaty, which for non-CFSP (Common Foreign and Security Policy) issues is the Commission or the EU Delegation in accordance with Article 17(1) TEU and Article 221 TFEU. IMO internal rules make such an arrangement absolutely possible as regards existing agenda and work programme items. This way of proceeding is in line with the General Arrangements for EU statements in multilateral organisations endorsed by COREPER on 24 October 2011.

## ANNEX

MARITIME SAFETY COMMITTEE  
96th session  
Agenda item 11

MSC 96/11 /XX  
[Day] [Month] [Year]  
Original: ENGLISH

### **[SHIP DESIGN AND CONSTRUCTION (REPORT OF THE THIRD SESSION OF THE SUB-COMMITTEE)]**

#### **Comments on proposed amendments to SOLAS Regulations II-1/6 and II-1/8-1**

#### **Submitted by the European Commission on behalf of the European Union**

#### **SUMMARY**

<i>Executive summary:</i>	This paper provides comments on the report of the SDC3 Sub-Committee with particular regard to the draft amendments to SOLAS Regulation II-1/6 – Survivability of passenger ships.
<i>Strategic direction:</i>	5.1 and 5.2
<i>High-level action:</i>	5.2.1.13
<i>Planned output:</i>	–
<i>Action to be taken:</i>	Paragraph 17
<i>Related documents:</i>	SDC3/WP.1 and SDC3/WP.4

1 This document comments on the proposed new passenger ship required subdivision index 'R' for regulation II-1/6. It is submitted in accordance with the provisions of paragraph 6.12.5 of the *Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.4/Rev.4).

#### **Background**

2 At SDC3 the SDS Working Group was instructed to finalize the draft amendments to regulation II-6 (Required subdivision index R) related to the survivability of passenger ships, taking into account the report of the FSA Experts Group (SDC 3/3/4) and documents SDC 3/3/7, SDC 3/3/8, SDC 3/3/9, SDC 3/3/10 and SDC 3/3/11, SDC 3/INF.3, SDC 3/INF.4 and SDC 2/INF.3.

3 The SDC3 sub-committee agreed to propose draft amendments to Regulation II-6 that reflect a compromise between the level of R recommended by the EMSA 3 research and concerns expressed regarding the practicability of the recommendation for ships having less than 400 persons on board (POB).

4 This paper comments on the compromise proposal and recalls some relevant additional information to assist the Committee in its deliberations.

## Discussion

5 In recent years a significant number of ship designs has been investigated in various research projects conducted by different stakeholders that showed that a cost efficient increase of 'R' can be achieved for ships carrying more than 400 POB. EMSA 3 confirmed this outcome by studying three designs in the range 400-1000 POB, two of which were less than 100m length, and one of which was a 'double-end' design. This was also validated by the FSA EG which reported in SDC 3/3/4 that the EMSA 3 study (SDC 3/INF. 3) was conducted according to the FSA Guidelines and only in the range of below 400 POB there was a need for further technical consideration.

6 As was shown in the EMSA 3 study and was also confirmed by the Germany/CESA study (SDC 2/INF.3) and Denmark (SDC 3/INF.4), one of the key drivers of the damage stability performance of designs between 400 and 1000 POB is Regulation 8 of Ch. II-1. This means that the ship designs investigated already had some margin in their original 'A' values above the currently required level of 'R', therefore there was no need for extensive design modifications in order to achieve 'A' Indices above the EMSA 3.1 curve.

7 During the discussions at SDC 3 there was also a concern regarding the compatibility of the proposals for ships having less than 1000 POB with the Safe Return to Port requirements. It should be noted that the small cruise ship design that was investigated in EMSA 3 and has a subdivision length of 125.8m complies with the safe return to port provisions, therefore there were solutions presented for ships with more than 400 POB.

8 The view was expressed that for some ships carrying a relatively small number of passengers, some design features (such as the long lower hold) would result of difficult implementation if the agreed R index level is adopted. In that respect the authors of SDC3/INF.4 conclude that long lower holds are still feasible provided longitudinal bulkheads at B/10 are installed. In the EMSA 3 study, the practicability of a long lower hold was not investigated due to the fact that the ships chosen did not have the necessity of such an arrangement in their business models.

9 In relation to ships carrying less than 400 POB, there is a higher degree of uncertainty due to the low number of available data points. The document SDC3/INF.4 provides some insight on this range of ships. However no cost benefit assessment was performed in that study, so it reflects the existing situation and includes no RCOs as foreseen in the FSA Guidelines.

10 Due to the low number of data points in this range of ships a compromise solution was agreed upon during SDC 3. However it is also important to note that SDC 2 /INF.3 includes a design in this range for which no cost efficient solution was found. All RCOs considered included an increase in beam which naturally has a big effect on operational costs. When compared with ship design 5 of EMSA 3, the small ropax ship, such a tendency is confirmed. When the beam is increased, the RCOs are not cost efficient, but when there is an increase in freeboard of 0.3m, the increase in 'A' is cost efficient.

11 Furthermore, according to the MARINFO database which is populated with data from four commercial providers and by using the following criteria:

- $N < 400$  Persons on Board;
- $GT > 1000$ ;

- Material of construction: Steel;
- Date of built: After 1/1/1990;
- HSC were excluded.

It can be concluded that in total, 73 non ropax ships were identified out of which 36 were estimated to have international operations. For ropax ships 251 ships were identified out of which 43 were considered as international.

12 Further to the above analysis:

- The majority of the international non ropax ships that were identified were cruise ships and it was recognised that some of these have the characteristics of exclusive cruises sailing worldwide but also for six ships in the Arctic.
- The ropax ships present a very different picture; it is worth noting that the average GT of the identified ships is 21023 which is characteristic of the ships in question. These are typically larger ships (average Lbp = 150m) with a relatively high capacity of trailers which also have the capacity to accommodate 100 to 300 passengers.

13 The HARDER project was the basis for setting the current level of 'R' and therefore it is important to note that at the time the results that were presented were as follows:

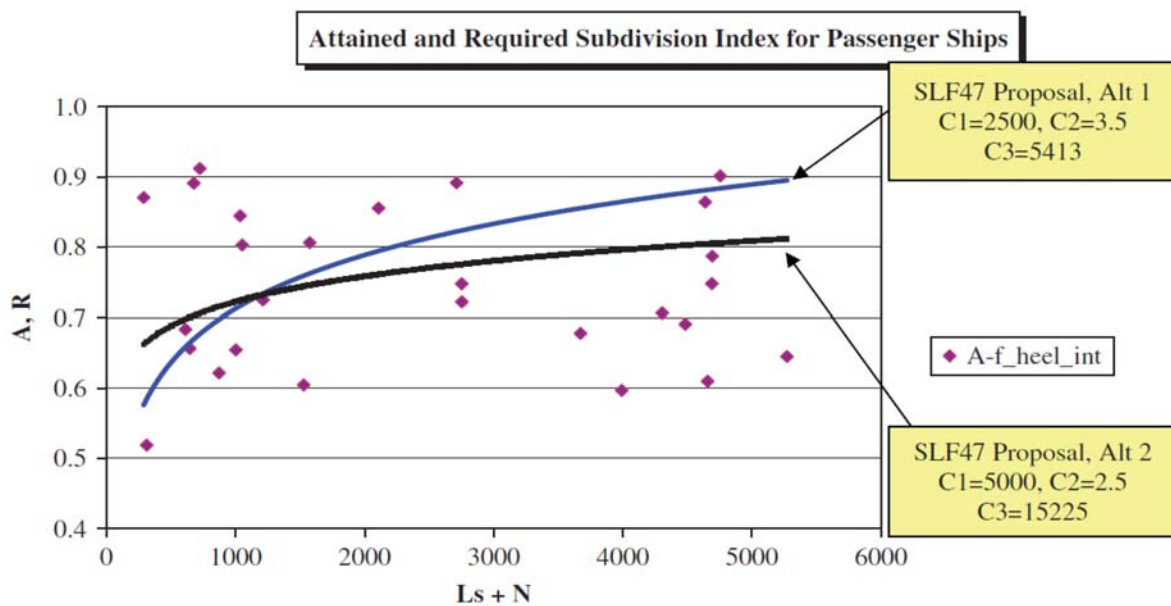


Figure 1 - R-index of SLF47 proposal for passenger ships based on HARDER data

14 As can be observed, the actual results based on existing designs showed a declining tendency of passenger ships in terms of Attained Subdivision Index A. This tendency was not adopted for SOLAS 2009 as it was considered that larger ships should have a higher 'R'.

15 It should also be noted that there are 'small' ships (x-values represent  $L_s+N$  so the points below 1000 are referred to) with high values of 'A'.

16 Regarding the issue of the R curve fit, it is noted that the intent of the proposed R curve was to achieve values of the R index approaching the EMSA 3.2 line as an upper limit (ref. to SDC3/3/7) for ships above 1000 POB. The EMSA3.2 line lies entirely within (and in the lower part of) the region where the EMSA 3 Study has demonstrated that solutions are

available to increase the R index within the cost effectiveness criteria, as confirmed by the FSA EG (SDC3/3/4). Therefore the proposed R formula for the range 1000 to 6000 POB is fully justified.

**Action requested of the Committee**

17 The Committee is invited to consider and take into account the information provided.