



Council of the  
European Union

Brussels, 20 November 2017  
(OR. en)

14573/17

MAR 199  
OMI 51

#### COVER NOTE

---

From: Secretary-General of the European Commission,  
signed by Mr Jordi AYET PUIGARNAU, Director

date of receipt: 17 November 2017

To: Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of  
the European Union

---

Subject: COMMISSION STAFF WORKING DOCUMENT For the Council Shipping  
Working party IMO - Union submission to be submitted to the 5th session  
of the Sub-Committee on Ship Systems and Equipment (SSE 5) of the IMO  
in London from 12 - 16 March 2018 concerning measures to address  
enhanced fire risks caused by the transport of vehicles with electrical  
drives

---

Delegations will find attached document SWD(2017) 416 final.

---

Encl.: SWD(2017) 416 final



Brussels, 17.11.2017  
SWD(2017) 416 final

**COMMISSION STAFF WORKING DOCUMENT**

**For the Council Shipping Working party**

**IMO – Union submission to be submitted to the 5th session of the Sub-Committee on Ship Systems and Equipment (SSE 5) of the IMO in London from 12 - 16 March 2018 concerning measures to address enhanced fire risks caused by the transport of vehicles with electrical drives**

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

**IMO – Union submission to be submitted to the 5th session of the Sub-Committee on Ship Systems and Equipment (SSE 5) of the IMO in London from 12 – 16 March 2018 concerning measures to address enhanced fire risks caused by the transport of vehicles with electrical drives**

**PURPOSE**

The document in Annex contains a draft Union submission to the 5th session of the Sub-Committee on Ship Systems and Equipment (SSE 5) of the IMO concerning a proposal to develop guidelines for appropriate measures regarding the enhanced fire risk caused by the transport of electrically powered vehicles and reefer units and other alternatively driven vehicles. It is hereby submitted to the appropriate technical body of the Council with a view to achieving agreement on transmission of the document to the IMO prior to the required deadline of 5 January 2018<sup>1</sup>.

Article 6(2)(a)(i) of Directive 2009/45/EC on Safety Rules and Standards for Passenger Ships<sup>2</sup> makes the application of SOLAS in its up-to-date version applicable to new Class A ships. The draft submission concerns amendments to SOLAS II-2 regulation 20 (Protection of vehicle, special category and ro-ro spaces) that will have a direct impact on Class A ships and therefore the said draft Union 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.

<sup>2</sup> OJ L 163, 25.6.2009, p. 1.

**REVIEW SOLAS CHAPTER II-2 AND ASSOCIATED CODES TO MINIMIZE THE INCIDENCE  
AND CONSEQUENCES OF FIRES ON RO-RO SPACES AND SPECIAL CATEGORY  
SPACES OF NEW AND EXISTING RO-RO PASSENGER SHIPS**

**Measures to address enhanced fire risks caused by the transport of vehicles with  
electrical drives**

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

**SUMMARY**

*Executive summary:* This submission contains a proposal to develop guidelines for appropriate measures regarding the enhanced fire risk caused by the transport of electrically powered vehicles and reefer units and other alternatively driven vehicles.

*Strategic direction:* 5.2

*High-level action:* 5.2.1

*Output:* 5.2.1.29

*Action to be taken:* Paragraph **13**

*Related documents:* FSI 21/5, SSE 2/INF.3, MSC 96/INF.3, SSE 4/INF.6

**Introduction**

1 This document is submitted in accordance with section 6.12.[3][4] of the *Guidelines on the Organization and Method of Work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.4/Rev.4).

2 SSE 4 invited Member States and international organizations to submit proposals regarding development of Interim Guidelines and regarding amendments to SOLAS chapter II-2 and the associated Codes.

3 However, this document aims to address the enhanced fire risks that originates from the increasing transport of electrical and other vehicles with alternative drives carried on ro-ro Passenger Ships.

## **Background**

4 There are several studies that investigate the impact of electrically, other alternatively driven vehicles and trailers with reefer containers transported on ro-ro Ships (FSI 21/5 by Canada, SSE 2/INF.3 by Germany, MSC 96/INF.3 by Germany, SSE 4/INF.6 by EC).

## **Discussion**

5 All of these submissions confirm that the increased transport of vehicles with alternative drives determines increased fire risk. It is well-documented by the number of accidents associated with their reasons in the past years.

6 The analyses in FSI 21/5 (annex 6) figured out a significant number of ro-ro deck fires which was caused by electrically driven units, vehicles and reefer container. It is to be expected that this number will increase enormously the more electric vehicles or reefer units will be transported.

7 More precisely, SSE 2/INF.3 evaluated, based on their assumptions regarding the increased number of alternatively driven vehicles, that the number of fires on ro-ro vehicle decks will double (Annex, p. 33).

8 MSC 96/INF.3 confirmed that there is a significantly higher risk when transporting reefer units, electrically driven vehicles and other vehicles powered by alternative means

9 The study SSE 4/INF.6 worked out, that 41% of the ignition sources of fires on ro-ro decks come from electrical reefers and powertrains of vehicles, both connected and unconnected to the ship.

10 As the number of such vehicles on ro-ro passenger ships is still increasing and is expected to increase even more the next years, this issue will gain even more relevance. Without appropriate measures there is a very high possibility that the fire risk on such ships will increase significantly. The increasing demand for transporting vehicles with alternative power sources and units that need to be connected to power source on board are likely to increase incidents involving these.

11 Keeping in mind that it is an important economic factor to charge electrically driven vehicles while they are transported on ro-ro decks, and the expected increasing number of electrically driven vehicles on ro-ro decks, the risk caused by electrical connections to the ship will be enhanced.

## **Proposal**

12 The submitter[s] therefore propose developing guidelines that address these special risks and enhance the safety when transporting vehicles that are alternatively driven and reefer units.

## **Action requested of the Sub-Committee**

13 The Sub-Committee is invited to consider supporting the development of guidelines proposed in paragraph 11 above and take action as appropriate.

\*\*\*