

MARITIME SAFETY COMMITTEE
104th session
Agenda item 15

MSC 104/15/2
9 June 2021
Original: ENGLISH
Pre-session public release:

WORK PROGRAMME

Proposal for a new output to review and update SOLAS regulation II-2/9

Submitted by United Kingdom, United States and IACS

SUMMARY

Executive summary: This document proposes a new output to review and update SOLAS regulation II-2/9 to address the difficulties and ambiguity which have been encountered when applying it currently

Strategic direction, if applicable: 6

Output: Not applicable

Action to be taken: Paragraph 19

Related documents: SSE 4/12/13; SSE 6/12/6, SSE 6/18 (paragraph 12.22); SSE 7/16/1, SSE 7/16/2, SSE 7/16/4 and SSE 7/16/7

Introduction

1 This document is submitted in accordance with the provisions of 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.5/Rev.2) and proposes a new output to review and update SOLAS regulation II-2/9.

Background

2 Current SOLAS regulation II-2/9 was adopted in 2000. After its adoption, several guidance documents pertaining to this regulation have been approved as MSC circulars (see paragraph 9 below). However, there are still some uncertainties when applying the regulation.

3 Document SSE 6/12/6 (IACS) provides the draft unified interpretation of SOLAS regulations II-2/9 to clarify the required fire integrity of bulkheads between engine-rooms and spaces in which urea or sodium hydroxide solution tanks are installed. During the discussion and while agreeing with IACS' document, SSE 6 noted a specific comment that SOLAS regulation II-2/9 should be thoroughly reviewed as a sustainable solution that properly takes account of the design of modern ships (SSE 6/18, paragraph 12.22).

4 In that respect, the co-sponsors note that there are some challenges of classifying spaces for modern ships in current configuration of SOLAS regulation II-2/9, for example, as explained in documents SSE 6/12/6 regarding NO_x/SO_x reducing devices and SSE 4/12/13 (IACS) regarding ballast water treatment systems, etc.

5 Other issues regarding SOLAS regulation II-2/9 were also identified and additional documents seeking clarification were submitted. Amongst those are:

- .1 fire integrity of divisions between open ro-ro spaces and open deck (SSE 7/16/4 (IACS));
- .2 fire insulation of ducts between the fire damper and the division penetrated (SSE 7/16/1 (IACS));
- .3 interpretations on the details of duct penetrations (SSE 7/16/7 (IACS)); and
- .4 interpretation on isolated pantries (SSE 7/16/2 (United States)).

6 Those documents were considered by SSE 7; although the proposals in document SSE 7/16/2 were agreed as a new circular, clarifications requested by IACS in documents SSE 7/16/1 and SSE 7/16/4 were considered to require an amendment to SOLAS. Clarifications requested in document SSE 7/16/7 were referred to the Correspondence Group on Fire Protection for further consideration.

IMO's objectives

7 This proposal for a new output aims to review and update SOLAS regulation II-2/9 in line with IMO's mission statement to promote safe, secure, environmentally sound, efficient and sustainable shipping through cooperation.

8 It is related to IMO's strategic direction SD 6 "Ensure regulatory effectiveness", as set out in the *Strategic Plan for the Organization for the six-year period 2018 to 2023* (resolution A.1110(30)).

Need

9 As stated in paragraphs 2 to 6 above, challenges and ambiguities exist when applying current SOLAS regulation II-2/9. Subsequently, a number of guidance documents in the form of unified interpretations and guidelines have been developed to aid effective and consistent global application of SOLAS regulation II-2/9, as listed in table 1 below. The co-sponsors consider that there is a need to incorporate these guidance documents into the regulation to make it more comprehensive and to ensure consistent and uniform implementation.

Table 1 – Available guidance regarding SOLAS regulation II-2/9

Circular Number	Content
MSC/Circ.1037	Fire testing of watertight doors
MSC/Circ.1120	Various interpretations on SOLAS II-2/9 is included
MSC/Circ.1169	Combustible gaskets in ventilation duct connections
MSC.1/Circ.1203	<ul style="list-style-type: none"> • "A-60" insulation of portions facing cargo area of tankers • Penetrations in fire-resistive divisions and prevention of heat transmission
MSC.1/Circ.1239 and /Corr.1	Fire category of fan rooms serving engine-rooms
MSC.1/Circ.1276	Separation of galley exhausts ducts from spaces
MSC.1/Circ.1480	Flexible bellows of combustible materials
MSC.1/Circ.1510	Typical arrangements for prevention of heat transmission at intersections and terminal points of insulation of decks and/or bulkheads (amendment to MSC/Circ.1120)
MSC.1/Circ.1511	Fire integrity of the boundaries of ro-ro/vehicle spaces
MSC.1/Circ.1527	Non-combustible material as "steel or equivalent" for ventilation ducts
MSC.1/Circ.1555	Bulkhead between the wheelhouse and toilet inside the wheelhouse
MSC.1/Circ.1581	Bulkhead between the wheelhouse and navigation locker
MSC.1/Circ.1615	Interim Guidelines for minimizing the incidence and consequences of fires in ro-ro spaces and special category spaces of new and existing ro-ro passenger ships.
MSC.1/Circ.1616	<ul style="list-style-type: none"> • Fire integrity of the division between engine rooms and spaces in which urea or sodium hydroxide solution tanks are installed • Galley exhaust duct fixed fire-extinguishing systems

Analysis of the issue

10 The co-sponsors consider that the practicability, feasibility and proportionality of the proposal are evident, taking into account that the intent is not to introduce new technology or new regulations, but to review the current framework of SOLAS regulation II-2/9 for identifying any gaps or areas of possible different interpretations in light of modern ship arrangements and to judiciously consider the merit of incorporating into the regulation the provisions of the guidance documents listed in paragraph 9 above.

Analysis of implications

11 It is intended that the outcome of the review, in the form of any necessary amendments to the mandatory instrument, will provide a justified, reasoned and rational set of requirements. It is proposed that any such amendments would apply to new ships constructed on or after the date of the entry into force of the amendments.

12 There are no additional administrative requirements or burdens, and also no additional cost to the shipping industry. A complete checklist for identifying administrative requirements and burdens is set out in annex 1.

Benefits

13 The co-sponsors are of the view that the benefit of undertaking the work related to this new output will provide clarity to the regulation which will facilitate their global and consistent implementation and the intended objective of promoting the safety of ships.

Industry standards

14 The co-sponsors are not aware of the existence of any internationally recognized standards, other than the IMO instruments referred to the above, or if any standards of relevance to the issues discussed above are being developed.

Output

15 The following new output is proposed:

"Review and update SOLAS regulation II-2/9 to incorporate existing guidance¹ and clarify requirements² in SOLAS regulations II-2/9.7.3.1.3 and II-2/9.2.3.3 and tables 9.5 and 9.6, to remove any ambiguities which arise".

16 Parts I and II of the check/monitoring sheet provided in annex 2 to the *Guidance on drafting of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1500/Rev.1) have been completed and are set out in annex 2.

Human element

17 The completed checklist *Checklist for considering human element issues by IMO bodies* (MSC-MEPC.7/Circ.1) is set out in annex 3. The proposal is not considered to have relevant implications for the human element.

Urgency

18 It is proposed that the output should be included in the Committee's post-biennial agenda with two sessions needed to complete the item by the SSE Sub-Committee.

Action requested of the Committee

19 The Committee is invited to consider the proposals in paragraphs 15 and 18 and take action, as appropriate.

¹ Refer to table 1 in paragraph 9 of the document.

² Refer to paragraph 6 of the document.

ANNEX 1

CHECKLIST FOR IDENTIFYING ADMINISTRATIVE REQUIREMENTS

This checklist should be used when preparing the analysis of implications required in submissions of proposals for inclusion of outputs. For the purpose of this analysis, the term "administrative requirement" is defined, in accordance with resolution A.1043(27), as an obligation, arising from a mandatory IMO instrument, to provide or retain information or data.

Instructions:

- (A) If the answer to any of the questions below is **YES**, the Member State proposing an output should provide supporting details on whether the requirements are likely to involve start-up and/or ongoing costs. The Member State should also give a brief description of the requirement and, if possible, provide recommendations for further work, e.g. would it be possible to combine the activity with an existing requirement.
- (B) If the proposal for the output does not contain such an activity, answer **NR** (Not required).
- (C) For any administrative requirement, full consideration should be given to electronic means of fulfilling the requirement in order to alleviate administrative burdens.

<p>1 Notification and reporting? Reporting certain events before or after the event has taken place, e.g. notification of voyage, statistical reporting for IMO Members, etc.</p>	<p>NR ✓</p>	<p>Yes <input type="checkbox"/> Start-up <input type="checkbox"/> Ongoing</p>
<p>Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)</p>		
<p>2 Record-keeping? Keeping statutory documents up to date, e.g. records of accidents, records of cargo, records of inspections, records of education, etc.</p>	<p>NR ✓</p>	<p>Yes <input type="checkbox"/> Start-up <input type="checkbox"/> Ongoing</p>
<p>Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)</p>		
<p>3 Publication and documentation? Producing documents for third parties, e.g. warning signs, registration displays, publication of results of testing, etc.</p>	<p>NR ✓</p>	<p>Yes <input type="checkbox"/> Start-up <input type="checkbox"/> Ongoing</p>
<p>Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)</p>		
<p>4 Permits or applications? Applying for and maintaining permission to operate, e.g. certificates, classification society costs, etc.</p>	<p>NR ✓</p>	<p>Yes <input type="checkbox"/> Start-up <input type="checkbox"/> Ongoing</p>
<p>Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)</p>		
<p>5 Other identified requirements?</p>	<p>NR ✓</p>	<p>Yes <input type="checkbox"/> Start-up <input type="checkbox"/> Ongoing</p>
<p>Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)</p>		

ANNEX 2

**CHECK/MONITORING SHEET FOR THE PROCESSING OF AMENDMENTS TO THE
CONVENTION AND RELATED MANDATORY INSTRUMENTS
(PROPOSAL/DEVELOPMENT)**

Part I – Submitter of proposal (refer to paragraph 3.2.1.1)

1	<i>Submitted by (document number and submitter)</i> MSC 104/15/2 – the United Kingdom, the United States and IACS
2	<i>Meeting session</i> MSC 104
3	<i>Date (date of submission)</i> 9 June 2021

Part II – Details of proposed amendment(s) or new mandatory instrument (refer to paragraphs 3.2.1.1 and 3.2.1.2)

1	<i>Strategic direction</i> SD 6 (Ensure regulatory effectiveness)
2	<i>Title of the output</i> Review and update SOLAS regulation II-2/9 to incorporate existing guidance ¹ and clarify requirements ² in SOLAS regulations II-2/9.7.3.1.3 and II-2/9.2.3.3 and tables 9.5 and 9.6, to remove any ambiguities which arise
3	<i>Recommended type of amendments (MSC.1/Circ.1481) (delete as appropriate)</i> Four-year cycle of entry into force
4	<i>Instruments intended for amendment (SOLAS, LSA Code, etc.) or developed (new code, new version of a code, etc.)</i> SOLAS regulation II-2/9
5	<i>Intended application (scope, size, type, tonnage/length restriction, service (International/non-international), activity, etc.)</i> Ships to which SOLAS chapter II-2 applies
6	<i>Application to new/existing ships</i> New ships
7	<i>Proposed coordinating Sub-Committee</i> SSE
8	<i>Anticipated supporting Sub-Committees</i> None
9	<i>Time scale for completion</i> 2024
10	<i>Expected date(s) for entry into force and implementation/application</i> 1 January 2028
11	<i>Any relevant decision taken or instruction given by the Committee</i> None

¹ Refer to table 1 in paragraph 10 of the document.

² Refer to paragraph 6 of the document.

ANNEX 3

CHECKLIST FOR CONSIDERATION OF HUMAN ELEMENT ISSUES BY IMO BODIES

Instructions: If the answer to a question below is:	
(A) YES , the preparing body should provide supporting details and/or recommendation for further work.	
(B) NO , the preparing body should give proper justification as to why human element issues were not considered.	
(C) NA (Not Applicable) – the preparing body should give proper justification as to why human element issues were not considered applicable.	
Subject being assessed: (e.g. resolution, instrument, circular being considered)	
SOLAS	
Responsible body: (e.g. committee, sub-committee, working group, correspondence group, Member State)	
The Maritime Safety Committee and the SSE Sub-Committee	
1. Was the human element considered during development or amendment process related to this subject?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
2. Has input from seafarers or their proxies been solicited?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
3. Are the solutions proposed for the subject in agreement with existing instruments? (Identify instruments considered in comments section)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
4. Have human element solutions been implemented as an alternative and/or in conjunction with technical solutions?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
5. Has human element guidance on the application and/or implementation of the proposed solution been provided for the following:	
• Administrations?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
• Shipowners/managers?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
• Seafarers?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
• Surveyors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
6. At some point, before final adoption, was the solution reviewed or considered by a relevant IMO body with relevant human element expertise?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
7. Does the solution address safeguards to avoid single person errors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
8. Does the solution address safeguards to avoid organizational errors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
9. If the proposal is to be directed at seafarers, is the information in a form that can be presented to and easily understood by the seafarer?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
10. Were human element experts consulted during development of the solution?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
11. HUMAN ELEMENT: Has the proposal been assessed against the factors below?	
<input type="checkbox"/> CREWING. The number of qualified personnel required and available to safely operate, maintain, support and provide training for system.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> PERSONNEL. The necessary knowledge, skills, abilities and experience levels that are needed to properly perform job tasks.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> TRAINING. The process and tools by which personnel acquire or improve the necessary knowledge, skills and abilities to achieve desired job/task performance.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> OCCUPATIONAL HEALTH AND SAFETY. The management systems, programmes, procedures, policies, training, documentation, equipment, etc. to properly manage risks.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

<input type="checkbox"/> WORKING ENVIRONMENT. Conditions that have an impact on the safety, health and comfort of those working on board, such as noise, vibration, lighting, climate and other factors that affect crew endurance, fatigue, alertness and morale.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> HUMAN SURVIVABILITY. System features that reduce the risk of illness, injury or death in a catastrophic event such as fire, explosion, spill, collision, flooding or intentional attack. The assessment should consider desired human performance in emergency situations for detection, response, evacuation, survival and rescue and the interface with emergency procedures, systems, facilities and equipment.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<input type="checkbox"/> HUMAN FACTORS ENGINEERING. Human/system interface to be consistent with the physical, cognitive and sensory abilities of the user population.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<p>Comments: (1) Justification if answers are NO or Not Applicable. (2) Recommendations for additional human element assessment needed. (3) Key risk management strategies employed. (4) Other comments. (5) Supporting documentation.</p> <p>"NA" has been checked for a number of items because the proposal is to review and update SOLAS regulation II-2/9 which regulates fire containment by ship structure.</p>	