

SUB-COMMITTEE ON SHIP DESIGN AND
CONSTRUCTION
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Agenda item 7

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**MANDATORY INSTRUMENT AND/OR PROVISIONS ADDRESSING SAFETY STANDARDS
FOR THE CARRIAGE OF MORE THAN 12 INDUSTRIAL PERSONNEL ON BOARD
VESSELS ENGAGED ON INTERNATIONAL VOYAGES**

Report of the Correspondence Group

Submitted by Norway

SUMMARY

Executive summary: This document reports on the outcome of the work carried out by the Correspondence Group on Carriage of more than 12 industrial personnel on board vessels engaged on international voyages established at SDC 4

Strategic direction: 5.2

High-level action: 5.2.1

Output: 5.2.1.4

Action to be taken: Paragraph 24

Related documents: MSC 96/WP.7; MSC 97/WP.7, MSC 97/22; SDC 4/8, SDC 4/8/1 and SDC 4/16, section 8

Introduction

1 The Sub-Committee, at its fourth session, established the Correspondence Group on Carriage of more than 12 industrial personnel on board vessels engaged on international voyages, under the coordination of Norway.

List of participants

2 Representatives from the following Member States participated in the Group:

AUSTRALIA
BAHAMAS
BELGIUM
BRAZIL

CHILE
CHINA
DENMARK
FINLAND

FRANCE
GERMANY
IRELAND
JAPAN
MARSHALL ISLANDS
NETHERLANDS
NORWAY

PHILIPPINES
POLAND
SINGAPORE
UNITED KINGDOM
UNITED STATES
VANUATU

and observers from the following non-governmental organizations in consultative status:

INTERNATIONAL CHAMBER OF SHIPPING (ICS)
INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)
OIL COMPANIES INTERNATIONAL MARINE FORUM (OCIMF)
INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS (IADC)
COMMUNITY OF EUROPEAN SHIPYARDS' ASSOCIATIONS (CESA)
INTERNATIONAL MARINE CONTRACTORS ASSOCIATION (IMCA)
INTERNATIONAL TRANSPORT WORKERS' FEDERATION (ITF)

Terms of reference

3 The Group was instructed, taking into account documents MSC 96/WP.7, MSC 97/WP.7, MSC 97/22, SDC 4/8 and SDC 4/8/1, and the comments made at SDC 4, to:

- .1 develop a matrix that identifies the relevant aspects of the existing IMO regulatory framework, with regard to definitions and application, in order to ensure that the new SOLAS chapter [XV] and the new code are consistent with, and avoid unnecessary duplication of, the existing IMO instruments;
- .2 develop the draft new SOLAS chapter [XV];
- .3 consider the format and organization of the draft new code, providing explanation on the Group's decision;
- .4 develop the introduction and preamble for the draft new code, including also a possible promotion of a consistent level of safety in non-mandatory applications;
- .5 consider the impact that the service of the vessel may have on the total number of industrial personnel carried;
- .6 develop the draft new code, taking into account the matrix developed under subparagraph .1; and
- .7 submit a report to SDC 5.

Matrix identifying the relevant aspects of the existing IMO regulatory framework (ToR 1)

4 The Group considered the matrix drafted by IACS, listing the various mandatory and non-mandatory IMO instruments and their applications, and agreed to use the proposed list as a "checklist" for the development of the draft new SOLAS chapter [XV] and the draft new Industrial Personnel code (IP Code), to ensure that the new SOLAS chapter [XV] and the IP Code are consistent with, and avoid unnecessary duplication of, the existing IMO instruments. The matrix is set out in annex 1. However, it might be subject to further refinement.

5 In considering the matrix, the Group agreed in general that the new SOLAS chapter [XV] and the IP Code will not apply to mobile offshore drilling units (MODUs), however the need to spell out that in the draft new SOLAS chapter [XV] was questioned. The Group also noted that the possibility for a MODU to carry industrial personnel could not be excluded. Furthermore, as the 2009 MODU Code is not a mandatory code, it should not be referenced in SOLAS. Hence, no references to MODUs were included in the draft new SOLAS chapter [XV]. Based on the definition of industrial personnel, as set out in the *Interim recommendations on the safe carriage of more than 12 industrial personnel on board vessels engaged on international voyages* (MSC.418(97)), MODU offshore personnel are not considered as industrial personnel, unless they are transported to the MODU by another ship.

Draft new SOLAS chapter [XV] (ToR 2)

6 In developing the draft new SOLAS chapter [XV], the Group had some "policy" discussions on its applicability and the level of safety the draft IP Code should aim at. The Group also agreed to use the term "ship" not "vessel" in the draft new SOLAS chapter [XV] as this aligns better with the existing SOLAS chapters.

7 Regarding the applicability of the new SOLAS chapter [XV], the Group agreed to focus on ships above 500 gross tonnage at this stage, with the understanding that at a later stage of the development of the IP Code, its applicability to smaller ships should be further considered.

8 The Group also discussed new versus existing ships in the context of the new SOLAS chapter [XV]. It was acknowledged, that the new SOLAS chapter [XV] and the IP Code should be developed to enable cargo ships to carry more than 12 industrial personnel on international voyages, without applying the requirements for passenger ships, which is currently set out in the 1974 SOLAS Convention. In this context, from a SOLAS perspective, all ships regardless of the date of construction, should meet the provisions of the IP Code, if intending to carry more than 12 industrial personnel on international voyages.

9 Notwithstanding the above, the Group, having noted concerns expressed regarding the consequences for ships currently transporting industrial personnel based on the provisions in resolution MSC.418(97), agreed that some kind of grandfathering should be considered at a later stage of the development of the IP Code and associated SOLAS amendments.

10 Having discussed in depth a proposal to include a specific definition of "passenger" applicable to the draft new SOLAS chapter [XV] only, the Group did not favour or see the need for such a definition. The Group agreed that inclusion of some wording in the new SOLAS chapter [XV], stating that industrial personnel are not considered to be passengers, would be sufficient to meet the "unless expressly provided otherwise" provisions of SOLAS chapter I. Wording to that effect has been included in square brackets in the draft new SOLAS chapter [XV], as regulation 2.1, but had not been discussed or agreed by the Group.

11 In this context, the representatives of the United Kingdom and IACS made the following comments, respectively:

"The UK believes that the discussion, agreement and any consequent solution referred to in paragraph 10 would be inconsistent with earlier discussions and the conclusions reported in paragraph 18 of MSC 96 WP.7."; and

"IACS is still of the opinion that any definition of chapter XV (regulation 1 definitions for the purpose of this chapter) does not change the application of SOLAS I/2(e) for earlier chapters of SOLAS. This will leave it unclear whether passenger ship requirements are to be applied or not."

12 The Group considered the potential carriage of an aggregated number of passengers, industrial personnel and special personnel. As carriage of special personnel was not part of the Group's mandate, any discussion on that was dismissed. However, it was agreed by the Group that the carriage of an aggregated number of passengers and industrial personnel may be a potential scenario and there is a need to ensure that whenever an aggregated number of passengers and industrial personnel are carried, the number of passengers shall never exceed 12. If the number of passengers exceeds 12, the ship is, as per the existing definition in SOLAS regulation I/2(f), a passenger ship and shall be treated and certified as such. In this context, the Group included a potential solution in the draft new SOLAS chapter [XV], as regulation 2.2, for further consideration.

13 Regarding the potential future carriage of special personnel on ships to which the IP Code applies, it is recommended that this could be considered at a later stage of the development of the IP Code. If, at that point, it is agreed that special personnel safely can be carried on an IP Code certified ship, recommendations to that effect could be prepared for the Committee's consideration.

14 The instructions to the Group and the general application of the 1974 SOLAS Convention imply that the new chapter [XV] and the IP Code would apply to ships on international voyages only. Given the nature of operation of the ships under consideration, the Group discussed briefly a proposal to have in the new chapter [XV] a definition of the term "international voyage", which is different from that in SOLAS chapter I. The proposal attempted to encompass ships operating outside national jurisdiction but still not on a voyage from a port in one state to a port in another state. However, the Group agreed that this proposal was outside the remit of the Group.

15 The Group also discussed the location of goals and functional requirements, and as the Group had a slight preference for inclusion of goals and functional requirements in the draft IP Code, no goals and functional requirements have been included in the draft new SOLAS chapter [XV] at present. It was however agreed that during the development of the draft IP Code, this could be reconsidered. It was also a common understanding that the draft new SOLAS chapter [XV] in general should be revisited as the development of the IP Code progresses to ensure consistency. The draft new SOLAS chapter [XV] is set out in annex 2.

16 Regarding the criteria for being considered as industrial personnel, the Group had different views on where to locate the requirements on medical fitness, training and familiarization. As a compromise, based on the comments received, the draft text has been included in square brackets in the draft new SOLAS chapter [XV], as regulation 4.3, for further consideration at SDC 5, with a view to include more detailed requirements in the IP Code.

17 In this context, it was suggested that requirements on medical fitness, training and familiarization might not be suitable for inclusion in the IP Code and that alternative solutions could be considered. However this has not been discussed by the Group.

Format and organization of the draft new code (ToR 3)

18 Due to time constraint, the Group did not discuss in depth the format and organization of the new code. However, it was agreed to use MSC.1/Circ.1394/Rev.1 as guidance, at a later stage of the development of the IP Code.

19 The Group further agreed that the lower safety standard for ships carrying industrial personnel should be SOLAS cargo ship standard. For high-speed craft, that would be the cargo craft standard, as set out in SOLAS chapter X. The Group agreed that the IP Code should be an add-on to these standards and favoured a multiple certificate solution. It was agreed in general that the special purpose ship (SPS) safety standard could serve as a bench-mark for the IP Code, and that, in general, the safety standard should not go below that in the 2008 SPS Code. One participant opposed the above, being of the opinion that the 2008 SPS Code should serve as the higher standard for ships carrying industrial personnel.

Introduction and preamble for the draft new code (ToR 4)

20 Taking into consideration the discussion reflected in paragraph 10 above, and noting the discussions at SDC 4 and the proposals in document SDC 4/8/1 (United States) to facilitate the international movement and operation of ships carrying industrial personnel by recognizing the code's non-mandatory application, a first draft of preamble wording was briefly discussed by the Group.

21 A number of different views were expressed, in particular on the non-mandatory application of the IP Code. As partly reflected in paragraph 14 above, some participants preferred to consider ways of making the IP Code mandatory also for ships not on international voyages and reiterated this preference during the discussions on the preamble. However, accepting that the output is limited to ships on international voyages, the majority of the Group supported the inclusion of a wording in the preamble of the IP Code, encouraging a wider application of the IP Code by Member States. A suggestion that rather than including text in the preamble of the IP Code, text could be included in the resolution adopting the IP Code was not discussed by the Group and should be further considered. The draft text of the preamble is included in annex 3 for further consideration.

Consideration of the impact that the service of the vessel may have on the total number of industrial personnel carried and development of the draft new code (ToR 5 and 6)

22 Due to time constraint these issues were not considered by the Group. However, in order to have a starting point for discussion at SDC 5, the coordinator developed a possible outline of the IP Code, including examples on measures to be included. The Group agreed to annex the aforementioned outline to the report, but to make it clear to the Sub-Committee that neither the format nor the examples have been discussed or agreed by the Group. The possible outline is set out in annex 3.

23 A general comment on the outline that did get some support, was a proposal to discuss the necessity of having sub-goal for each chapter of the IP Code. An alternative could be to have one general goal for the IP Code and functional requirements for each chapter supplemented by hazards and expected performances. It was also pointed out that it should be discussed whether only references to SOLAS should be made in the IP Code or the relevant text of SOLAS should be reproduced in the IP Code.

Action requested of the Sub-Committee

24 The Sub-Committee is invited to approve the report in general and, in particular, to:

- .1 endorse the Group's decision to use the matrix listing the various mandatory and non-mandatory IMO instruments and their applications as a "checklist", when developing the draft new SOLAS chapter [XV] and the draft IP Code (paragraph 4 and annex 1);

- .2 note the progress made on the development of the draft new SOLAS chapter [XV] (paragraphs 6 to 17 and annex 2) and endorse:
 - .1 the decision not to have any references to the 2009 MODU Code in the draft new SOLAS chapter [XV] (paragraph 5);
 - .2 the view that the new code shall apply to ships regardless of date of construction (paragraph 8);
 - .3 the decision not to include a definition of "passenger" applicable for the draft new SOLAS chapter [XV] only and concur with the Group's view related to "unless expressly provided otherwise" (paragraph 10); and
 - .4 the decision not to include a definition of "international voyage" applicable for the draft new SOLAS chapter [XV] only (paragraph 14);
- .3 note the preliminary discussions on the format and the organization of the draft new code (paragraphs 18 and 19);
- .4 note the preliminary discussions on the preamble (paragraphs 20 and 21, and annex 3); and
- .5 endorse the proposal to use annex 3 as a starting point for discussion on the development of the IP Code (paragraph 22).

ANNEX 1

MATRIX IDENTIFYING THE RELEVANT ASPECTS OF THE EXISTING IMO REGULATORY FRAMEWORK

Instrument	Mandatory (M) Non-mandatory (NM)	Date of adoption	Date of entry into force	Definition	Application	New ships	Certificate
SOLAS (Cargo ships)	M	17.06.1960	26.05.1965	International voyage (regulation I/2(e)(ii)) Cargo ship ≤ 12 pax	Mechanical propulsion (regulation I/3(a)(ii))	25.05.1980	CSSC
		01.11.1974	25.05.1980				
2008 SPS Code	NM	13.05.2008	To be determined by individual Member States	Crew (paragraph 1.3.3) Passenger (paragraph 1.3.8) Special personnel (paragraph 1.3.11)	SPS > 12 (SP+PAX) (paragraph 1.3.12 of chapter 1 and paragraph 3 of the preamble)	13.05.2008 or to be decided by the Administration	SPSSC + PSSC or SPSSC + CSSC
SPS Code (A.534(13))	NM	17.11.1983	To be determined by individual Member States	Crew (paragraph 1.3.1) Passengers (paragraph 1.3.2) Special personnel paragraph 1.3.3)		No date for new ship	SPSSC + PSSC or SPSSC + CSSC
OSV Code (MSC.237(82))	NM	27.11.1997 (A.863(20)) 01.12.2006 (MSC.237(82))	To be determined by individual Member States	ISM Code (section 1.4) and OSV Code (paragraph 1.1.3) refer to personnel	Examples and types of offshore installations (appendix 1 to the OSV Code) Safe practice for cargoes and persons (ISM Code)	No date for new ships	No certificate

Instrument	Mandatory (M) Non-mandatory (NM)	Date of adoption	Date of entry into force	Definition	Application	New ships	Certificate
<p>OSV Guidelines (MSC.235(82))</p>	<p>NM</p>	<p>19.11.1981 (A.469(XII)) 01.12.2006 (MSC.235(82)) 22.05.2012 (MSC.335(90))</p>	<p>To be determined by individual Member States</p>	<p>OSV Guidelines (paragraph 1.2.1) exclude personnel</p>	<p>OSVs < 500 GT: no requirements for machinery and electrical installations, fire protection, LSA and radio equipment (paragraph 1.1.2)</p> <p>Equivalentents: in accordance with SOLAS regulation I/5 (paragraph 1.1.3)</p> <p>Not applicable to OSVs < 24 metres (paragraph 1.1.1)</p> <p>Not applicable for carriage more than 12 industrial personnel (paragraph 4 of the preamble)</p> <p>Not applicable when OSVs are used for special purpose (paragraph 5 of the preamble)</p>	<p>A.469(XII): 19.05.1982 MSC.235(82): 01.06.2012 MSC.335(90): 22.11.2012</p>	<p>OSV Document of Compliance</p>

Instrument	Mandatory (M) Non-mandatory (NM)	Date of adoption	Date of entry into force	Definition	Application	New ships	Certificate
LHNS Guidelines (MSC.236(82))	NM	19.10.1989 (A.673(16)) 01.12.2006 (MSC.236(82)) 13.10.2006 (MEPC.158(55))	To be determined by individual Member States	paragraph 1.3.4 excludes personnel	Appropriate measures as per the IBC Code (MARPOL Annex II regulation 11(2)) Maximum amount of LHNS: lesser of 800m ³ or 40% DWT Reference to MSC.235(82) (paragraph 5 of the preamble) For tank containers: IDMG Code	A.673(16): 19.04.1990 MSC.236(82): 01.06.2007 MEPC.158(55): No date for new ships	LHNS Certificate of Fitness
DSC Code (A.373(X))	NM	14.11.1977	31.12.1979 till 01.01.1996	<i>Passenger</i> is every person other than: (a) the master and members of the crew or other persons employed or engaged in any capacity on board a craft on the business of that craft; and (b) a child under one year of age.	DSCs: (a) carry more than 12 passengers but not over 450 passengers with all passengers seated; and (b) do not proceed in the course of their voyage more than 100 nautical miles from the place of refuge.		Dynamically Supported Craft Construction and Equipment Certificate

Instrument	Mandatory (M) Non-mandatory (NM)	Date of adoption	Date of entry into force	Definition	Application	New ships	Certificate
SOLAS chapter X (HSC Code, passenger craft)	M	20.05.1994 (1994 HSC Code)	01.01.1996	HSC is a craft having max speed equal to or exceeding $3.7 \nabla^{0.1667}$ (m/s)	HSCs not more than four hours at operational speed from place of refuge SOLAS regulation X/3.1 excludes SOLAS chapters I to IV	No definition, therefore, the date of entry into force	HSC certificate + permit to operate
		05.12.2000 (2000 HSC Code)	01.07.2002	Passenger (paragraph 1.4.39 of the 1994 HSC Code and paragraph 1.4.46 of the 2000 HSC Code) Passenger craft (paragraph 1.4.40 of the 1994 HSC Code and paragraph 1.4.47 of the 2000 HSC Code)			
SOLAS chapter X (HSC Code, cargo craft)	M	20.05.1994 (1994 HSC Code)	01.01.1996	HSC is a craft having max speed equal to or exceeding $3.7 \nabla^{0.1667}$ (m/s)	HSCs > 500 gross tonnage not more than 8 hours at operational speed from place of refuge SOLAS regulation X/3.1 excludes SOLAS chapters I to IV	No definition, therefore, the date of entry into force	HSC certificate + permit to operate
		05.12.2000 (2000 HSC Code)	01.07.2002	Cargo craft (paragraph 1.4.8 of the 1994 HSC Code and paragraph 1.4.10 of the 2000 HSC Code)			

Instrument	Mandatory (M) Non-mandatory (NM)	Date of adoption	Date of entry into force	Definition	Application	New ships	Certificate
SOLAS chapter VI	M		Continuous updates	Nothing related to persons	All ships, including those < 500 gross tonnage (IMSBC Code)		None
SOLAS chapter VII	M		Continuous updates	Nothing related to persons	All ships, including those < 500 gross tonnage (IMDG Code)		Certificates of Fitness (IBC, IGC and/or INF Codes)
OSV Chemical Code	NM	To be adopted at Assembly 30	01.07.2018 (proposed)	OSV 1.2.26 excludes personnel	No limit to number of persons on board or their status Linked to the OSV Guidelines (paragraph 1.1.7)	01.07.2018	Certificate of Fitness
MARPOL Annex IV	M		Continuous updates	<i>Person</i> means member of the crew and passengers	All ships of 400 gross tonnage and above All ships of less than 400 gross tonnage, if carrying more than 15 persons	Existing ships: keels of which are laid or which are of a similar stage of construction before 2 October 1983	ISPP Certificate
MODU Code	NM	15.11.1979 (A.414(XI)) 19.10.1989 (A.649(16)) 02.12.2009 (A.1023(26))	31.12.1981 01.05.1991 01.01.2012	Provisions refer to <i>personnel on board</i> and <i>persons on board</i>	SPS Code not to be applied in addition to the MODU Code (paragraph 1 of the preamble of the 2009 MODU Code)	No definition, therefore, the date of entry into force	MODU Certificate

Explanation of the acronyms used in the matrix

CSSC – Cargo Ship Safety Certificate;

SPSSC – Special Purpose Ship Safety Certificate

PSSC – Passenger Ship Safety Certificate

ISPP Certificate – International Sewage Pollution Prevention Certificate

ANNEX 2

DRAFT AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

The following new chapter XV is added after the existing chapter XIV:

"CHAPTER XV SAFETY MEASURES FOR SHIPS CARRYING [MORE THAN 12] INDUSTRIAL PERSONNEL [ON INTERNATIONAL VOYAGES]

(Note: The wordings "on international voyages" and "more than 12" are in square brackets as some participants suggested this text to be superfluous.)

Regulation 1 – Definitions

For the purpose of this chapter:

(Note: Other chapter chapeaus before 'definitions' include 'unless provided otherwise' language, which MUST NOT appear in this case, since it is intentionally overridden, at least the passenger definition. It must to be ensured that later reviews for consistency don't insert that text here.)

1 *Industrial Personnel (IP)* means all persons who are transported or accommodated on board for the purpose of offshore industrial activities performed on board other vessels and/or [other] offshore facilities.

2 *IP Code* means the International Code of Safety for Ships carrying [more than 12] Industrial Personnel [on international voyages], as adopted by resolutions MSC...., as may be amended, provided that:

- .1 amendments to the IP Code, are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

3 *Offshore industrial activities* means the construction, maintenance, decommissioning, operation or servicing of offshore facilities related, but not limited, to exploration [and exploitation of resources by], the renewable or hydrocarbon energy sectors, aquaculture, ocean mining or similar activities.

4 *Ship constructed* means a ship the keel of which is laid or which is at a similar stage of construction.

5 *At a similar stage of construction* means the stage at which:

- .1 construction identifiable with a specific ship begins; and
- .2 assembly of that ship has commenced comprising at least 50 tonnes or 1% of the estimated mass of all structural material, whichever is less.

Regulation 2 – General

(Note: This new regulation has been developed by the coordinator based on comments and proposals from the Group, and has not been discussed in the Group.)

[1 For the purpose of this chapter, Industrial Personnel is a category of persons in addition to, and distinct from, the master, members of the crew, other persons and the passengers recognized in regulation 1/2(e) of the present Convention and shall not be considered or treated as passengers.]

[2 Wherever in this chapter or the IP Code the number of industrial personnel appears as a parameter, it should include the number of passengers carried on board which shall not exceed 12.]

Regulation 3 – Application

1 Unless expressly provided otherwise, this chapter applies to cargo ships of 500 gross tonnage and above certified in accordance with chapter I [or X], carrying [more than 12] industrial personnel [on international voyages].

[2 While this chapter applies to cargo ships of 500 gross tonnage and above, Administrations may also consider the application of the IP Code to ships of lesser gross tonnage.]

(Note: This is a placeholder for smaller ships as the Group has agreed to focus on ships of 500 gross tonnage and above. There is a proposal on the table to require new ships of less than 500 gross tonnage to meet some specific chapters of SOLAS and the IP Code. However, it has not been discussed.)

3 In case of repairs, alterations and modifications of a major character and outfitting related thereto of existing ships, it shall be ensured that areas, in which changes have been made, meet the requirements of this chapter for new ships, [insofar as the Administration deems reasonable and practicable.]

(Note: While this is supported by a large majority, it is necessary to have a common understanding/definition of what constitutes a major conversion in the context of this chapter.)

4 This chapter shall not apply to ships owned or operated by a Contracting Government and used, for the time being, only in Government non-commercial service. However, ships owned or operated by a Contracting Government and used, for the time being, only in Government non-commercial service are encouraged to act in a manner consistent, as far as reasonable and practicable, with this chapter.

5 Nothing in this chapter shall prejudice the rights or obligations of States under international law.

Regulation 4 – Requirements

1 Ships to which this chapter applies shall comply with the IP Code and shall, in addition to the requirements of regulation 1/8, 1/9, and 1/10, as applicable, be surveyed and certified, as provided for in that Code.

2 Ships to which this chapter applies holding a certificate issued pursuant to the provisions of paragraph 1 shall be subject to the control established in regulations 1/19 and XI-1/4. For this purpose, such certificates shall be treated as a certificate issued under regulations 1/12 or 1/13.

[3 All industrial personnel shall be at least 16 years of age, be medically fit, and have received appropriate safety training and ship familiarization, as set out in chapter [...] of the IP Code.]

(Note: This is a compromise solution proposed by the coordinator and has not been discussed.)

[4 Information verifying that the industrial personnel fulfil the requirements of this chapter and the provisions of the IP Code shall be available to the master before departure and to the person or organization designated by the flag and port State.]

(Note: This proposal has not been discussed.)

[Regulation 5 – Alternative design and arrangement

1 The goal of this regulation is to provide a methodology for alternative design and arrangements for structure, machinery, and electrical installations, fire safety and life-saving appliances and arrangements.

2 Structural arrangements, machinery and electrical installation, fire safety design and arrangement measures and as well as life-saving appliances and arrangements may deviate from the prescriptive requirements set out in chapters [...] of the IP Code, provided that the alternative design and arrangements meet the intent of the goal and functional requirements concerned and provide an equivalent level of safety to the requirements in those chapters.

3 When alternative designs or arrangements deviate from the prescriptive requirements of chapters [...] of the IP Code, an engineering analysis, evaluation and approval of the design and arrangements shall be carried out based on the guidelines approved by the Organization¹.

4 Any alternative designs or arrangement deviating from the prescriptive requirements shall be recorded in the [name] Certificate, also defining the technical and operational measures and conditions for the allowed deviation.]

(Note: The need for this is questioned.)

¹ Refer to the *Guidelines for the approval of alternatives and equivalents as provided for in various IMO instruments* (MSC.1/Circ.1455), the *Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III* (MSC.1/Circ.1212) and the *Guidelines on alternative design and arrangements for fire safety* (MSC/Circ.1002), as applicable."

ANNEX 3*

(Note: Below, the coordinator of the correspondence group has tried to illustrate what the IP Code may look like, given the preference of the Group to follow the guidelines given in MSC.1/Circ.1394/Rev.1. The measures in the 2008 SPS Code and document SDC 4/8 (Germany) have been used as examples to illustrate the format of the regulation sections.)

DRAFT [INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING [MORE THAN 12] INDUSTRIAL PERSONNEL [ON INTERNATIONAL VOYAGES]]

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* This annex is reproduced in English only.

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[Preamble

1

Alternative 1

As the offshore and the energy sectors are expanding, new industrial activities have emerged. Furthermore, the areas of such activities are expanding, revealing a need for safe [and appropriate] transportation of industrial personnel to and from various [worksites offshore] [offshore worksites].

Alternative 2

As the offshore energy sector is expanding, new industrial activities have emerged. Furthermore, the increasing number of offshore projects and innovations has created new and growing demand for, revealing a need for safe transportation of industrial personnel to and from various worksites offshore.

Alternative 3

As the offshore and the energy sectors are expanding, new industrial activities have emerged. Furthermore, the areas of such activities are expanding, bringing innovations in the offshore oil and gas industry creating new and increased demand for multipurpose ships which inevitably combine some aspects of transport to and from structures and/or other ships, and accommodation, together with a variety of offshore construction activities.

1 bis The safety standards of the passenger ship rules in the existing IMO instruments do not fully meet the hazards related to maritime operations within the offshore sectors, which differs significantly from the hazards connected with conventional passenger transport between ports.

(Note: New proposal.)

2

Alternative 1

The International Code of Safety for Ships carrying [more than 12] Industrial Personnel [on International Voyages] has been developed to supplement existing IMO instruments in order to meet these needs.

Alternative 2

The MSC, at its ninety-sixth session, recognized the difficulties caused by the lack of a clear definition for industrial personnel and the lack of legally binding international safety standards for the carriage of more than 12 industrial personnel on board in the existing IMO instruments. The International Code of Safety for Ships carrying [more than 12] Industrial Personnel [on International Voyages] has been developed to supplement existing IMO instruments in order to meet these needs.

Alternative 3

Existing IMO instruments can no longer meet the needs of the oil and gas industry which generates a large variety of novel ship types specifically designed for new transport and erection tasks on or beyond the continental shelf. The International Code of Safety for Ships carrying [more than 12] Industrial Personnel [on International Voyages] has been developed to supplement existing IMO instruments in order to meet these needs.

Alternative 4

Add the following text at the end of paragraph 2 and delete paragraph 3:

"It provides a mandatory international standard of safety for ships carrying industrial personnel [on international voyages], which will facilitate their safe transport and result in a level of safety for the ships and their personnel equivalent to that required [for other operations in] [by existing IMO instruments referred to by] the International Convention for the Safety of Life at Sea, 1974."

3

Alternative 1

The Code provides a mandatory international standard of safety for ships carrying industrial personnel [on international voyages], which will facilitate their safe transport and result in a level of safety for the ships and their personnel equivalent to that required for other operations in the International Convention for the Safety of Life at Sea, 1974.

Alternative 2

The above-mentioned safety concerns were recognized by the MSC, at its ninety-sixth session, which unanimously agreed to the development of the Code. The Code provides a mandatory international standard of safety for ships carrying industrial personnel [on international voyages, which will facilitate their safe transport and result in a level of safety for the ships and their personnel.

Alternative 3

The Code, in addition to the requirements in the International Convention for the Safety of Life at Sea, 1974, as amended, provides a mandatory international standard of safety for ships carrying industrial personnel [on international voyages].

(Note: It is also proposed that this paragraph may be deleted following further discussions on paragraph 3.)

4

Alternative 1

Because industrial personnel are required to meet certain criteria related to safety training, ship familiarization and medical fitness, they [are not] [shall not be] considered or treated as passengers [as defined in SOLAS chapter 1].

Alternative 2

Because industrial personnel are required prior boarding the ship to receive appropriate safety training and on board ship specific safety familiarization, to be familiarized with specific procedures and to meet appropriate medical standards, they are not considered or treated as passengers.

(Note: It is proposed that we do not need to justify why IPs are not passengers. It is also proposed to delete this paragraph.)

[5

Alternative 1

The Code has been developed for ships operating on international voyages. However, it is recognized that a large number of transport of industrial personnel will take place within the confines of a particular coastal state. To facilitate international movement and safe operations of ships carrying IP, [the non-mandatory application of the Code should be promoted and recognized.] [Administrations are encouraged to apply the Code to ships operating only on national voyages.]

Alternative 2

The Code has been developed for ships operating on international voyages, as defined in SOLAS I/2(d). However, it is recognized that a large number of transport of industrial personnel will take place within the confines of a particular coastal state. This Code may also be used by Administrations as guidance, if considered applicable, in relation to voyages between a base port and an offshore installation.]

Alternative 3

The Code has been developed for ships operating on international voyages. However, it is recognized that a large number of transport of industrial personnel will take place either within the confines of a particular coastal state or between a base port and an offshore installation outside territorial waters. To facilitate international movement and safe operations of ships carrying IP, the non-mandatory application of the Code should be promoted and recognized for such voyages.

(Note: Deletion is also proposed.)

6 The Code applies to ships of 500 gross tonnage and above. However as industrial personnel shall not be considered or treated as passengers, it is recognized that ships below 500 gross tonnage also may carry an aggregated number of passengers and industrial personnel in excess of 12. In such cases [the Administration should apply the goals and functional requirements of the code] [the goals and functional requirements of the code] should be applied as far as practicable.]

(Note: Deletion is also proposed for various reasons.)

Chapter 1 – General

1.1 Goal

The goal of this Code is to provide for safe transport of Industrial Personnel on [cargo] ships by addressing any risks present not adequately mitigated by the [cargo ship] [applicable] safety standards in the International Convention on Safety of Life at Sea.

1.2 Structure of the Code

Where the chapters of the Code consist of overall goal of the chapter, functional requirements to fulfil the goal and regulations, a ship shall be considered to meet a functional requirement when the ship's design and arrangements comply with all the regulations associated with that functional requirement.

1.3 Definitions

1.3.1 *HSC Code* means the International Code of Safety for High-Speed Craft, 2000, as adopted by the Maritime Safety Committee of the Organization by resolution MSC.97(73), as amended.

1.3.2 *SOLAS* means the International Convention for the Safety of Life at Sea, 1974, as amended.

Additional definitions if needed.

1.4 Certificate and survey

1.4.1 Every ship to which this Code apply shall have on board a valid IP Certificate.

(Note: Need to find a name for the certificate.)

1.4.2 The IP Certificate shall be issued after an initial or renewal survey to a ship which complies with the [relevant] [applicable] requirements of this Code.

1.4.3 The certificate referred to in this regulation shall be issued either by the Administration or by any person or organization recognized by it in accordance with SOLAS regulation XI-1/1. In any case, the Administration assumes full responsibility for the certificate.

1.4.4 The IP Certificate shall be drawn up in a form corresponding to the model given in [...] to this Code. If the language is not English, French or Spanish, the text shall be translated into one of these languages.

1.4.5 The IP Certificate validity, survey dates and endorsements shall be harmonized with the relevant SOLAS certificates in accordance with the provisions of regulation I/14 of the 1974 SOLAS Convention. [The certificate shall include a supplement recording equipment required by the Code.]

Chapter 2 – Personnel

2.1 Goal

2.2 Functional requirements

2.3 Regulations

All industrial personnel shall:

- .1 prior to boarding the ship, receive appropriate safety training, meeting the standard in paragraph 2.1 of section A-VI/1 of the STCW Code. Administrations may accept other industrial training standards¹ if they consider these appropriate alternatives;
- .2 receive on board ship specific safety familiarization that includes, but is not limited to, the layout of the ship, and handling of the safety equipment, as appropriate. The standard in paragraph 1 of section A-VI/1 of the STCW Code, or equivalent, should be used as the standard;
- .3 be familiarized with specific procedures, e.g. transfer procedures on and off the ship while at sea, as appropriate;
- .4 be accounted for in the ship's life-saving equipment;
- .5 be equipped with personal protective clothing and equipment suitable for the safety risks to be encountered both while on board the ship and being transferred at sea; and
- .6 meet appropriate medical standards. The standard in section A-I/9 of the STCW Code, applicable to engineers, or equivalent, may be used as a standard.

¹ Such as those of the Global Wind Organisation (GWO), Offshore Petroleum Industry Training Organisation (OPITO), Basic Offshore Safety Induction and Emergency Training (OPITO accredited).

Chapter 3 – Structure

(Note: This is an example on how a chapter may look were the requirements are the same regardless of the number of IP carried. It is assumed that the IP Code only have add-on requirements.)

3.1 Goal

The goal of this chapter is to provide for protection against contact damage during transfer of IP to and from the ship to the offshore installation.

3.2 Functional requirements

In order to achieve the goal set out in paragraph 3.1 above, any area of the ship that may be in direct contact with the offshore structure when IP board or leave the offshore structure shall be constructed and designed in a way that enables it to withstand the loads it is subject to and that prevents contact damage.

3.3 Regulations

In order to meet the functional requirement set out in 3.2 above the area that may be in direct contact with the offshore structure when IPs board or leave the offshore structure shall comply with the requirements in SOLAS chapter II-1/3-1 taking into account the additional loads the area may be subject to.

Chapter 4 – Stability and subdivision

(Note: If a cargo ship certification is required as the bottom line, we may not need to address intact stability.)

4.1 Goal

The goal of this chapter is to prevent occurrence of flooding and reduce the risk to life and ship caused by flooding taking into account the number of persons at risk.

4.2 Functional requirements

In order to achieve the goal set out in paragraph 4.1 above ships carrying IP shall be designed with watertight boundaries providing for a survivability standard after damage that takes due account of the number of [IP] [persons] carried on board.

4.3 Regulations

In order to meet the functional requirement set out in 4.2 above the following apply:

- .1 subdivision and damage stability shall in general be in accordance with SOLAS chapter II-1, where the ship is considered a passenger ship and IP are considered passengers, with an R value calculated in accordance with SOLAS regulation II-1/6.2.3 as follows:
 - .1 where the ships is certified to carry more than [...] IP (2008 SPS Code value: 240 persons on board) the R value is assigned as R ;
 - .2 where the ship is certified to carry not more than [...] IP (2008 SPS Code value: 60 persons on board), the R value is assigned as $0.8 \cdot R$;

- .3 where the ship is certified to carry more than [...] IP (but not more than [...]), the *R* value should be determined by linear interpolation between the *R* values given in .1 and .2 above;
- .2 For ships to which the HSC Code apply, [in lieu of meeting the requirements in 4.3.1 above], subdivision and damage stability shall in general comply with part A and B of chapter 2 of the HSC Code with the following alteration:
 - .1 where the ship is certified to carry not more than [60] IP, the location of a damage according to regulations 2.6.7 and 2.6.10 of the HSC Code shall be assumed anywhere within the first third of the vessel measured from the forward perpendicular. For the remaining length of the vessel damage should be assumed at any position between two transverse watertight bulkheads.

Chapter 5 – Machinery installations

5.1 Goal

The goal of this chapter is to ensure that machinery installations are capable of delivering the required functionality necessary for safe operation of the ship taking into account the number of persons at risk.

5.2 Functional requirements

In order to achieve the goal set out in paragraph 5.1 above, necessary redundancy or isolation of essential systems shall be provided in order to ensure safe navigation after any incident affecting the machinery installations, taking into account the number of [IP] [persons] carried on board.

5.3 Regulations

In order to meet the functional requirement set out in paragraph 5.2 above the following apply:

5.3.1 *Ships shall comply with the requirements of part C of SOLAS chapter II-1 with the following alteration*

Steering gear installations shall be in accordance with regulation II-1/29 except that:

- .1 where the ship is certified to carry not more than [...] IP (2008 SPS Code value: 240 reasons on board), regulation 29.6.1.1 shall not apply; and
 - .2 where the ship is certified to carry more than [...] IP (2008 SPS Code value: 240 person on board), regulation 29.6.1.2 shall not apply.
- #### 5.3.2 *[In lieu of meeting the requirements in 5.3.1 above], ships to which the HSC Code apply shall*
- .1 where the ship is certified to carry more than [12], but not more than [60], IP, comply with parts A and C of chapters 9 and 10 in the HSC Code; and
 - .2 where the ship is certified to carry more than [60] IP, comply with parts A and B of chapters 9 and 10 of the HSC Code.

Chapter 6 – Electrical installations

6.1 Goal

The goal of this chapter is to ensure that the sources of power are capable of delivering the required functionality necessary for safe operation of the ship taking into account the number of persons at risk.

6.2 Functional requirements

In order to achieve the goal set out in paragraph 6.1 above, sufficient emergency source of power shall be provided in order to ensure functionality of all essential systems after any incident affecting the electrical installation, taking into account the number of [IP] [persons] carried on board.

6.3 Regulations

In order to meet the functional requirement set out in 6.2 above the following apply:

6.3.1 *Ships shall comply with the requirements of part D of SOLAS chapter II-1 with the following alteration*

- .1 where the ship is certified to carry not more than [...] IP (2008 SPS Code value: 60 persons on board), regulation 42 and 42-1 shall not apply, except for ships of more than 50 m in length that shall comply with the requirements of regulation 42.2.6.1; and
- .2 where the ship is certified to carry more than [...] IP (2008 SPS Code value: 240 persons on board), regulation 43 shall not apply.

6.3.2 *[In lieu of meeting the requirements in 6.3.1 above], ships to which the HSC Code apply shall*

- .1 where the ship is certified to carry more than [12], but not more than [60], IP, comply with chapter 11 and parts A and C of chapter 12 in the HSC Code; and
- .2 where the ship is certified to carry more than [60] IP, comply with chapter 11 and parts A and B of chapter 12 of the HSC Code.

Chapter 7 – Periodically unattended machinery spaces

7.1 Goal

The goal of this chapter is to ensure that if and when a machinery space is periodically unattended, this does not impair the safety of the ship.

7.2 Functional requirements

In order to achieve the goal set out in paragraph 7.1 above, additional controls, monitoring and alarms shall be provided taking into account the number of [IP] [persons] carried on board.

7.3 Regulations

In order to meet the functional requirement set out in paragraph 7.2 above, ships shall comply with the following:

- .1 where the ship is certified to carry not more than [...] IP (2008 SPS Code value: 240 persons on board), part E of SOLAS chapter II-1 shall be complied with.
- .2 where the ship is certified to carry more than [...] IP, for the purpose of this regulation, IP shall be considered as passengers and the ship as a passenger ship, and regulation 54 shall be complied with.

Chapter 8 – Fire safety

8.1 Goal

The goal of this chapter is to prevent occurrence of fire and reduce the risk to life and ship caused by fire, taking into account the number of persons at risk.

8.2 Functional requirements

In order to achieve the goal set out in paragraph 8.1 above, thermal and structural boundaries, means to detect, contain and extinguish fire in the space of origin and protection of means of escape and access for firefighting that takes due account of the number of [IP] [persons] carried on board shall be provided.

8.3 Regulations

In order to meet the functional requirement set out in paragraph 8.2 above, the following apply:

- .1 Where the ship is certified to carry more than [...] IP (2008 SPS Code value: 240 persons on board), the requirements of SOLAS chapter II-2 for passenger ships carrying more than 36 passengers shall be complied with.
- .2 Where the ship is certified to carry more than [...] (2008 SPS Code value: 60 persons on board), but not more than [...] (2008 SPS Code value: 240 persons on board), IP, the requirements of SOLAS chapter II-2 for passenger ships carrying not more than 36 passengers shall be complied with.
- .3 Where the ship is certified to carry not more than [...] IP (2008 SPS Code value: 60 persons on board), the requirements of SOLAS chapter II-2 for cargo ships shall be complied with.
(Note: If the cargo ship certification is the bottom line, paragraph 8.3.3 may not be necessary.)
- .4 If the ship is intended to transport dangerous goods, regardless of number of IP carried, the requirements of SOLAS regulation II-2/19, shall be complied with.
(Note: The 2008 SPS Code has some text on this that is not suitable for a mandatory code, so it is necessary to consider this in depth.)

- .5 [In lieu of meeting the requirements in paragraphs 8.3.1 to 8.3.4 above], ships to which the HSC Code apply, regardless of number of IP carried, shall:
- .1 comply with parts A and B of the HSC Code;
 - .2 if arranged with cargo spaces, comply with paragraph 7.15 of part C of chapter 7 of the HSC Code; and
 - .3 if intended to transport dangerous goods, comply with part D of chapter 7 of the HSC Code.

Chapter 9 – Life saving appliances

9.1 Goal

The goal of this chapter is [...].

9.2 Functional requirements

In order to achieve the goal set out in paragraph 10.1 above, [...].

9.3 Regulations

In order to meet the functional requirement set out in paragraph 10.2 above, the following apply: [...].

Chapter 10 – Carriage of dangerous goods

10.1 Goal

The goal of this chapter is [...].

10.2 Functional requirements

In order to achieve the goal set out in paragraph 11.1 above, [...].

Chapter 11 – Personnel transfer

11.1 Goal

The goal of this chapter is [...].

11.2 Functional requirements

In order to achieve the goal set out in paragraph 11.1 above, [...].

11.3 Regulations

In order to meet the functional requirement set out in paragraph 11.2 above, the following apply:

(Note: If SOLAS certification is required as the bottom line, there may be no need for any additional chapters concerning radiocommunications, safety of navigation, ISM, ISPS, etc.)

[Chapter 12 – Transport of limited amounts of hazardous and noxious liquid substances in bulk]

(Note: The new code on transport and handling of limited amounts of hazardous and noxious liquid substances in bulk will come into play soon and the LHNS Guidelines exists. It is necessary to decide if it is OK to carry such substances when carrying IP. If not, it is necessary to state so.)

[Chapter 13 – Cargo handling]

(Note: This may be needed if a ship carries cargo and IP.)

Any additional chapters as needed
