



TECHNICAL INFORMATION

36 Myeongji ocean city 9-ro,
Gangseo-gu, Busan, 618-814
KOREAN REGISTER

Phone: +82-70-8799-8321
Fax : +82-70-8799-8339
E-mail: convention@krs.co.kr
Person in charge: NAM Kwankyung

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Subject: Development to SOLAS Chapter XV and IP CODE “SAFETY MEASURE FOR SHIPS CARRYING INDUSTRIAL PERSONNEL” implemented on 1 July 2024

1. Background

As the maritime and energy industries are expanding, there's a rising need for safe transportation of industrial personnel to and from vessels and offshore facilities. However, the current IMO standards had raised concerns due to the absence of a clear definition for industrial personnel and the lack of international safety standards for transporting them.

To address these concerns, the SOLAS Chapter XV and International Code of Safety for Ships Carrying Industrial Personnel (IP Code) were adopted by the Maritime Safety Committee at its 106th session and will enter into force on or after 1 July 2024. It aims to meet industry demands and enhance safety by providing international standards for ships carrying industrial personnel, ensuring safe transportation and personnel transfer.



2. Applicability

2.1 SOLAS Chapter XV and IP code apply to cargo ships and high-speed cargo craft of 500 gross tonnage and upwards, engaged on international voyages, constructed¹ on or after 1 July 2024 which carry more

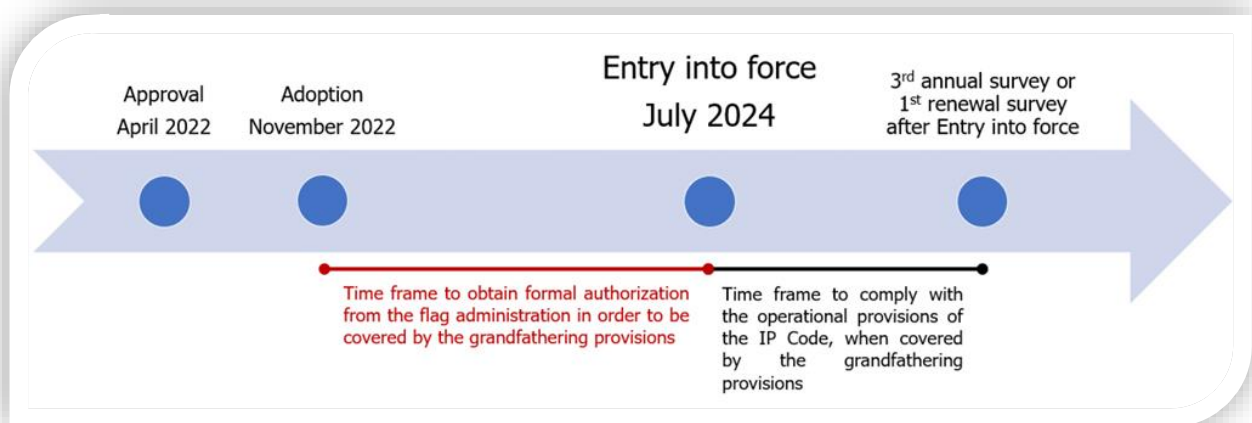
¹ The term “ships constructed” hereby means ships the keels of which are laid or which are at a similar stage of construction in accordance with SOLAS regulation II-1/1.3.1.

than 12 industrial personnel^{2,3}.

2.2 Cargo ships constructed before 1 July 2024, authorized by the Administration to carry more than 12 industrial personnel in accordance with the recommendations developed by the Organization^{4,5}, shall comply with regulations III/1(Industrial Personnel), III/2 (Safe Transfer except for paragraph 2.1.7), IV/7 (Life-saving appliances) and IV/8 (Dangerous goods) of the IP Code by the first intermediate or renewal survey, whichever occurs first, after 1 July 2024.

2.3 High-speed cargo craft constructed before 1 July 2024, authorized by the Administration to carry more than 12 industrial personnel in accordance with the recommendations developed by the Organization^{4,5}, shall comply with regulations III/1, III/2 (except for paragraph 2.1.7), V/7 and V/8 of the IP Code by the third periodical or first renewal survey, whichever occurs first, after 1 July 2024.

2.4 Cargo ships and high-speed cargo craft, irrespective of date of construction, which prior to the 1 July 2024 have not been authorized by the Administration to carry more than 12 industrial personnel based on the recommendations developed by the Organization,² shall comply and be certified in accordance with this chapter and the IP Code prior to the carriage of more than 12 industrial personnel on board.



< Time frame of IP Code entry into force >

² The number of industrial personnel subject to SOLAS XV and IP Code is calculated as the total of industrial personnel (IP), special personnel (SP) and passengers (PS), and it shall be included at least one industrial personnel (IP). (If the number of passengers exceeds 12, it is considered a passenger ship and passenger ship requirements apply).

³ According to the ship's flag administration, this regulation may be applied to ships less than 500 gross tonnage or not operating on international voyage, so please confirm the flag state instruction for ships transporting industrial personnel exceeding 12 people. (e.g.: Marshall Islands, Bahamas and Saint Vincent & The Grenadines issued the related instructions)

⁴ Refer to the Interim recommendations on the safe carriage of more than 12 industrial personnel on board vessels engaged on international voyages (resolution MSC.418(97))

⁵ KR will carry out survey and SOC issuance related to Resolution MSC.418(97) for Malta and Saint Vincent flag ship's in accordance with Administrations instruction.

3. Definitions

3.1 **IP Code** means the International Code of Safety for Ships Carrying Industrial personnel.

3.2 **Industrial personnel (IP)** means all persons transported or accommodated on board for the purpose of offshore industrial activities performed on board other ships and/or offshore facilities.

3.3 **Offshore industrial activities** mean 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.

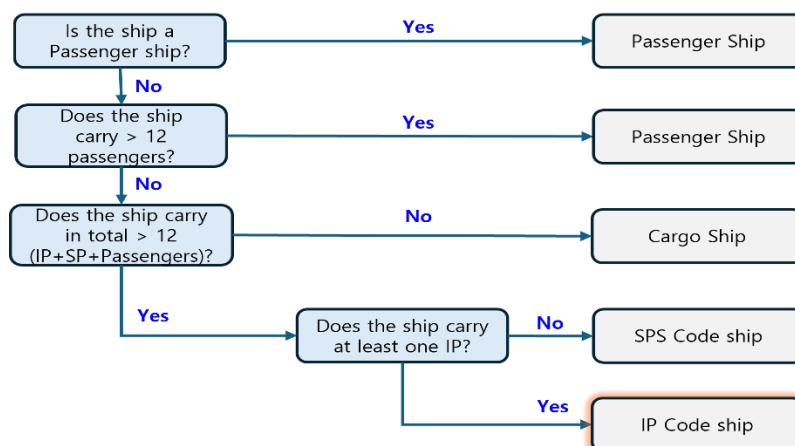
3.4 **HSC Code** means the International Code of Safety for High-Speed Craft, 2000.

4. General

4.1 Wherever in the IP Code a reference is made to passenger ship requirements, the corresponding cargo ship requirements are deemed to be complied with.

4.2 Industrial personnel shall not be treated or considered as passengers.

4.3 The number of industrial personnel subject to SOLAS Chapter XV and IP Code is calculated as the total of industrial personnel, special personnel, and passenger. If the total of industrial personnel, special personnel, and passengers exceeds 12, and at least one industrial personnel is included, the SOLAS Chapter XV and IP Code should be applied. However, if the number of passengers exceeds 12, the ship is classified as a passenger ship and the passenger ship requirements are applied, not the cargo ship requirements.



< Application flow chart >

5. Regulations

5.1 Industrial personnel

The qualifications for industrial personnel include minimum age requirement (at least 16 years old), the documentary evidence of being physically and medically fit, proficiency in the working language on board and the training⁶ (such as survival and fire safety). Additionally, the requirements for pre-departure and post-boarding ship safety familiarization, including IP transfer procedures, are stipulated.

5.2 Safe Transfer

The goal of this regulation is to provide for the safety of all persons involved in personnel transfer, including safe and suitable means of transfer and the capability of safely carrying out the operations connected to personnel transfer as following:

- Establish safety procedures for the installation and use of transfer arrangements.
- Provide means of communication between the responsible officer and the navigation bridge.
- All personnel transfer arrangements shall be permanently marked to enable identification of each appliance for the purposes of survey, inspection and record-keeping.
- Provide lighting supplied by an emergency source to illuminate the personnel transfer arrangements and the water below the transfer arrangements.
- Personnel transfer arrangements shall be designed, constructed, tested and installed in accordance with EN 1385-1:2013 acceptable to the Administration or requirements of a classification society which is recognized by the Administration.
- The design of the personnel transfer arrangements shall be suitable for the arrangement on the ship.
- Perform an analysis such as FMEA (Failure Mode and Effects Analysis) to evaluate failures in personnel transfer arrangements and provide solutions to ensure safe transfers.
- Means for position-keeping shall be provided, and the ship's maneuverability shall be evaluated to ensure correct use.
- Procedures shall be in place to ensure correct information on the number and identity of personnel on board at all times.

5.3 Additional regulations for ships certified in accordance with SOLAS CHAPTER I (Cargo ship)

⁶ Training as such survival and fire safety may be recognized as meeting international standards as shown below:

- the training requirements in paragraph 5.5 of the Recommendations for the training and certification of personnel on mobile offshore units (resolution A.1079(28))
- the Global Wind Organization (GWO)
- Offshore Petroleum Industry Training Organization (OPITO)
- Basic Offshore Safety Induction and Emergency Training (OPITO-accredited)

Ships to carry more than 12 industrial personnel shall be applied to SOLAS requirements for cargo ships and shall additionally be applied as follows depending on the number of people on board.
 (The asterisks (*) in the table below applies to SOLAS requirements for cargo ships)

	Ship carrying Less than 60 persons	Ship carrying more than 60, but not more than 240 persons	Ship carrying more than 240 persons
Subdivision and Stability (Intact Stability)	*	*	It shall meet the SOLAS II-1/5 (Intact stability) as though the ship is a passenger ship and the industrial personnel are counted as passengers. However, SOLAS II-1/5.5 (lightweight survey) is not applicable.
(Required subdivision index R)	Where the ship is considered a passenger ship with the value R as follows: $R = 1 - \frac{5,000}{L_s + 2.5N + 15,225}$ N = N ₁ + 2N ₂ N ₁ = number of persons for whom lifeboats are provided N ₂ = number of persons (including officers/crew and IP) the ship is permitted to carry in excess of N ₁ L _s means Subdivision Length in accordance with SOLAS II-1/2.19.2		
	0.8R	R (determined by linear interpolation between 0.8R~1.0R)	R
(Subdivision and damage stability)	The following requirements apply as a cargo ship. - SOLAS II-1/Parts B2~B4		The following requirements apply as a passenger ship. - SOLAS II-1/Parts B2~B4 - SOLAS II-1/8 (Special requirements for passenger ship restoration) - SOLAS II-1/8.1 (System capability and operational information after passenger ship flooding) - However, SOLAS II-1/14 (Cargo and passenger ship carrying vehicles) and SOLAS II-1/18 (Designation of watertight bulkhead compartments for passenger ships) are not applicable.
	The following requirements apply as a passenger ship.		

	<ul style="list-style-type: none"> - SOLAS II-1/9 (Double bottoms), - SOLAS II-1/13 (Openings in watertight boundaries below the bulkhead deck) - SOLAS II-1/19 (Damage control information), - SOLAS II-1/.20 (Loading of ships) - SOLAS II-1/21 (Periodical operation and inspection of watertight doors, etc.) 		
Machinery Installation	The following requirements apply as a passenger ship.		
	*	*	The following requirements apply as a passenger ship. - SOLAS II-1/29 (Steering gear)
Electrical installation	The SOLAS II-1/42.2.6.1 apply for installations in ships of more than 50 m in length.	The following requirements apply as a passenger ship. - SOLAS II-1/42 (Emergency source of electrical power) - SOLAS II-1/45.12 (Precautions against shock, fire and other hazards of electrical origin)	
Periodically unattended machinery spaces	*	*	The following requirements apply as a passenger ship. - SOLAS II-1 / Part E(Electrical installations).
Fire safety	*	The SOLAS II-2 for passenger ships apply except for SOLAS II-2/21 and 22 (SRtP)	The SOLAS II-2 for passenger ships carrying more than 36 passengers shall apply
Life-saving appliances and arrangements	*	The SOLAS III for passenger ships shall apply	
	<ul style="list-style-type: none"> - SOLAS III/2(Exemptions) and III/19.2.3(passenger safety briefing) are not applicable. - Where the term "passenger" is used in SOLAS III, it shall be read to mean industrial personnel as prescribed in SOLAS XV/2.3. - The required number of infant or child lifejackets shall be calculated solely based on the number of passengers on board. 		
Dangerous goods	<ul style="list-style-type: none"> - Industrial personnel may only bring dangerous goods on board for the purpose of their role off the ship and with the prior consent of the master of the ship. - These dangerous goods shall be considered as cargo and shall be transported in accordance with part A of SOLAS chapter VII (IMDG Code) including SOLAS II-2/19 (Carriage of dangerous goods) 		

(Carriage of dangerous goods in packaged form)	The ships shall be considered as Cargo ships for the requirements of the IMDG Code		The ships shall be considered as passenger ships for the requirements of the IMDG Code - SOLAS II-2/19.3.6.2 (Personnel protection) apply as a passenger ship carrying more than 36 passengers
(Carriage of dangerous goods in solid form in bulk)	*	*	The following requirements apply as a passenger ship carrying more than 36 passengers - SOLAS II-2/19.3.6.2(enclosed space entry and rescue drill) - Industrial personnel shall be considered as personnel in the context of personnel protection
(Carriage of dangerous liquid chemicals, liquefied gases and oil)	When simultaneously carrying dangerous liquid chemicals and/or liquefied gases as cargo in bulk and industrial personnel, the ship shall either be certified in accordance with the requirements of parts B or C of SOLAS chapter VII (IBC or IGC) meet and be certified in accordance with OSV Chemical Code - the areas and spaces on ships where industrial personnel are not permitted to enter shall be clearly marked - The arrangements for personnel transfer shall be located outside the cargo area - Embarkation or personnel transfer and loading or unloading of cargo shall not take place simultaneously		
	*	*	The Carriage of toxic products, low-flashpoint products or acids shall not be allowed

5.4 Additional regulations for craft certified in accordance with SOLAS chapter X (High Speed Craft)

5.4.1 High-speed cargo craft certified in accordance with SOLAS chapter X shall not carry more than 60 persons on board.

5.4.2 High-speed craft carrying not more than 60 persons on board shall meet the requirements for cargo craft in the HSC Code and the applicable regulations in IP Code / Part V

6. Survey and Certificate

6.1 Ships and high-speed craft to which IP CODE applies shall be certified as a cargo ship or high-speed cargo craft with IP Industrial Personnel Safety Certificate.

6.2 Ships and high-speed craft applying the IP Code should possess a valid IP safety certificate (including the form and record of equipment in the appendix of the IP Code) issued by the administration or its recognized organization (RO). The validity period, survey date and endorsement of the IP safety certificate should align with those of the ship safety construction certificate⁷ or high-speed craft safety certificate cargo.

6.3 As paragraph 6.1 above, even if some of the provisions of SOLAS are relaxed according to the IP Code which applies, issuance of an additional SOLAS Exemption Certificate is not required as it is in compliance with SOLAS Chapter XV and IP CODE.

If you have any questions regarding this Technical Information, please contact as below:

1 Convention & Legislation Service Team (convention@krs.co.kr):

- The general technical information
- The Non-Korean flagged ships (including BBCHP)

2 Statutory System Service Team (statutory@krs.co.kr)

- The Korean flagged ships

Attachment

1. SOLAS Regulation XV (SAFETY MEASURES FOR SHIPS CARRING INDUSTRIAL PERSONNEL)
2. IP CODE (International Code of Safety for Ships carrying Industrial Personnel)
3. Resolution MSC.418(97) (Interim recommendations on the safe carriage of more than 12 industrial personnel on board vessels engaged on international voyages)

* Distribution: KR surveyors, Ship builder, Ship owner/operators and other relevant parties.

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⁷ It should be confirmed whether valid cargo ship safety equipment certificate is on board when confirming that the validity period, survey date and endorsement of the IP safety certificate should align with those of the ship safety construction certificate.