



The introduction of the special purpose ships safety code

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Abstract: The International Maritime Organization adopted the Code of Safety for Special Purpose Ships 2008 (SPS Code) that sets the standards of ship construction and equipment for ships operating for special purposes other than those to which the International Convention for the Safety of Life at Sea can be applied. However, the Republic of Korea does not have sufficient national laws for the SPS Code, only providing the form of Special Purpose Ship Safety Certificate under the Ship Safety Act. Thus, if the SPS Code is applied to specialized ships, such as training ships, the ships are inspected on the basis of international regulations under the SPS Code and the certificate is issued in accordance with Article 23 of the Enforcement Ordinance of the Ship Safety Act. This can be regarded as a legal insufficiency in national law, even if the application of the SPS Code is not mandatory. Therefore, it is necessary to stipulate the SPS Code as a national law in order to resolve this legal insufficiency and promote the safe operation of special purpose ships. This study will look at the cases of major countries, such as the United States, the United Kingdom, Canada, and Australia, and propose the best way to enact the SPS Code as a national law.

Keywords: IMO, SPS Code, SOLAS, Ship safety act, Special personnel

1. Introduction

Ships are built for various purposes, and ships engaged in international voyages are subject to the application of international conventions. The International Maritime Organization (IMO) Assembly, at its 13th session, adopted the Code of Safety for Special Purpose Ships, 2008 (SPS Code), by Resolution A.534 (13), for the purpose of applying the standards of the construction and equipment of ships operating for special purposes other than ships to which the International Convention for the Safety of Life at Sea (SOLAS) can be applied. The Maritime Safety Committee (MSC), at its 84th session, subsequently revised the SPS code.

Article 23 (1) of the Enforcement Ordinance of the Ship Safety Act of the Republic of Korea stipulates “a Special Purpose Ship Safety Certificate” for ships that comply with the requirements of the SPS Code.* However, in the Ship Safety Act, the provisions that can be applied more effectively in domestic law are

insufficient. There is no specific public notice regarding the SPS Code, but only provision for the Special Purpose Ship Safety Certificate in Sub-paragraph 11, Paragraph 1 of Article 23 of the Enforcement Ordinance of the same Act.

As the SPS Code is not part of SOLAS and is not mandatory, it is important to enact it into national law in order to get legal status domestically. Furthermore, given the fact that there are many training ships and several research ships in the Republic of Korea, the special safety standards that can be applied to those ships are necessarily required, because the improved special safety measures under the SPS Code cannot be currently applied.

In order to eliminate such a legal insufficiency and promote legal certainty and the safety of ships, it is necessary to introduce the SPS Code as a national law. For the introduction of the SPS Code, the status quo of the SPS Code was first overviewed, and then several cases of major foreign countries were reviewed, and

* Article 23 of the Enforcement Ordinance of the Ministry of the Ship Safety Act (Forms, etc of International Convention Certificates) ① International Convention Certificates in accordance with Paragraph 2 of Article 12 are as follows;

11. Ships of not less than 500 gross tonnage that meet the requirements of the SPS Code: Special Purpose Ship Safety Certificate (attached form 26).

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a possible plan for national legalization of the Code was proposed.

2. The Status Quo of the SPS Code

2.1 Main Contents of the SPS Code and the Current Situation in the Republic of Korea

2.1.1 National Regulations Relating to the SPS Code

Paragraph 2 of Article 12 of the Ship Safety Act stipulates that “The Minister of Oceans and Fisheries shall issue an international convention inspection certificate containing the matters prescribed by the Enforcement Ordinance of the Ministry of Oceans and Fisheries and inspection records to ships that pass the international convention inspection.” Sub-paragraph 11, Paragraph 1 of Article 23 of the Enforcement Ordinance of the Ship Safety Act (such as Forms of International Convention Certificates) prescribes that “ships of not less than 500 gross tonnage that meet the requirements of the SPS Code be issued a Special Purpose Ship Safety Certificate (attached form 26).

Cargo ships of not less than 500 gross tonnage are required to have Cargo Ship Safety Radio Certificate, Cargo Ship Safety Construction Certificate, Cargo Ship Safety Equipment Certificate, or Cargo Ship Safety Certificate on board, while passenger ships are required to have a Passenger Ship Safety Certificate on board. As an international convention inspection certificate, ships pursuant to the SPS Code shall have a “Special Purpose Ship Safety Certificate” on board in accordance with Sub-paragraph 11, Paragraph 1 of Article 23 of the Enforcement Ordinance of the Ship Safety Act.

According to Paragraph 2 of Article 4 (Special Cases for Special Ships and Equipment) of the Ship Safety Act’s administrative regulations on Standards of Ship’s Facilities, the SPS Code [IMO Res. A. 534 (13)] could be applied to class 3 ships, such as observation ships, salvage ships, fishing guidance ships, fishery survey ships, training ships, factory ships, and other equivalent vessels at the discretion of owners.

As seen above, there are regulations on certificates that can be issued after inspection of international conventions and on ships to which the SPS Code can be applied. However, the SPS Code has not been enacted as a national law but only refers to the SPS Code [IMO Res. A. 534 (13)].

In this regard, the Republic of Korea establishes certain standards in the Ship Safety Act’s administrative regulations for ships to which the SPS Code shall be applied, and it is believed that,

even if it is a discretionary act, it will help maintain legal consistency and facilitate the safe operation of domestic ships already registered as special purpose ships.

2.1.2 Main Contents of the SPS Code

The SPS Code consists of 11 chapters, and was adopted on 17 November 1983, amended in 1986, 1987, 1996, and 2004, and the SPS Code 2004 came into force on 1 July 2006. The purpose of the SPS Code is to apply international safety standards for the construction and equipment of special purpose ships other than those to which the SOLAS can be applied. On 13 May 2008, the IMO Assembly, at its 13th session, adopted the Resolution A.534 (13) and the amendment of the SPS Code was adopted by the MSC at its 100th and 101st sessions.

The SPS Code applies to every special purpose ships of not less than 500 gross tonnage certified on or after 13 May 2008, and the Code has been developed for new ships of 500 gross tonnage and above. Administrations may also consider applying the provisions of the Code to ships of lesser tonnage. Special purpose ships carry more than 12 special personnel, with “special personnel” defined as all persons (who are not passengers or members of the crew), that are carried on board in connection with the special purpose of that ship or because of special work being carried out on board that ship, such as scientists or technicians engaged in research, or trainees.

In addition, according to the number of persons on board of special purpose ships, that is, 60 persons or less or between 60 persons and 240 persons, or over 240 persons, the Code sets different standards for steering gear, emergency source of electrical power, periodically unattended machinery spaces, fire safety system, and life-saving appliance. Special purpose ships with 60 persons or less are stipulated to apply the enhanced standards of passenger ships rather than that of cargo ships. In this Code, the subdivision and stability of the SPS shall meet the requirements of the SOLAS for the double bottom in passenger ships and cargo ships other than tankers, opening in watertight bulkheads below the bulkhead deck in passenger ships, damage control information, loading of passenger ships, and periodical operation and inspection of watertight doors, among others, in passenger ships.

It is required that the steering gear meets the standards for passenger ships or cargo ships according to the number of special personnel on board, bilge pumping arrangements, and emergency source of electrical power. They must meet the requirements equivalent to those of passenger ships. In addition, for special

purpose ships carrying more than 60 persons on board, electrical installation, and cables and wiring cannot be installed in dangerous areas without a risk assessment by the Administration, and fire prevention and detection shall meet the requirements for passenger ships carrying more than 36 passengers in the SOLAS Chapter II-2 (Construction-Fire protection, fire detection, and fire extinction).

For special purpose ships carrying more than 60 persons on board, the life-saving appliance shall meet the requirements applicable to international passenger ships in the SOLAS Chapter III (Life-saving appliances and arrangements) (paragraph 8.2). Special purpose ships carrying not more than 60 persons on board must have life-saving appliance that meet the requirements applicable to cargo ships other than tankers. Furthermore, radio communications shall meet the requirements for general cargo ships in the SOLAS Chapter IV (Radiocommunications), regardless of the number of persons on board, and the safety of navigation shall meet all of the requirements of SOLAS Chapter V (Safety of navigation).

In the SPS Code, “special personnel” are defined as all persons who are not masters, crew, or passengers as defined in Regulation 2 of the SOLAS Chapter I. “Crew” means all persons carried on board the ship to provide navigation and maintenance of the ship, its machinery, systems, and arrangements (paragraph 1.3.3). “Passenger” means every person other than the master, the members of the crew, or other persons employed or engaged in any capacity on board a ship and other than a child under one year of age (paragraph 1.3.8). “Special personnel” means all persons who are not passengers, members of the crew, or children under one year of age and who are carried on board in connection with the special purpose of that ship or because of special work being carried out aboard that ship (paragraph 1.3.11). Wherever the number of special personnel appears as a parameter, it should include the number of passengers carried on board which may not exceed 12.

† Safe return to port (SRtP) (SOLAS II-2, Reg.21)

When fire damage does not exceed the casualty threshold indicated in paragraph 3, the ship shall be capable of returning to port while providing a safe area as defined in regulation 3. To be deemed capable of returning to port, the following systems shall remain operational in the remaining part of the ship not affected by fire:

- .1 propulsion;
- .2 steering systems and steering-control systems;
- .3 navigational systems;
- .4 systems for fill, transfer and service of fuel oil;
- .5 internal communication between the bridge, engineering spaces, safety centre, fire-fighting and damage control teams, and as required for passenger

Special personnel are expected to have fair knowledge of the layout of the ship and to have received some training in safety procedures and the handling of the ship’s safety equipment before leaving port. Special personnel may include the following:

- ① scientists, technicians, and expeditionaries on ships engaged in research, non-commercial expeditions, and surveys;
- ② personnel engaging in training and practical marine experience to develop seafaring skills suitable for a professional career at sea. Such training should be in accordance with a training program approved by the Administration;
- ③ personnel who process the catch of fish, whales, or other living resources of the sea on factory ships not engaged in catching;
- ④ salvage personnel on salvage ships, cable-laying personnel on cable-laying ships, seismic personnel on seismic survey ships, diving personnel on diving support ships, pipe-laying personnel on pipe layers, and crane operating personnel on floating cranes. According to the SPS Code, where the number of persons who are not designated as special personnel exceeds 12, the requirements of passenger ships become applicable.

For special purpose ships carrying more than 240 persons on board, the requirements on fire protection of Chapter II-2 of SOLAS for passenger ships carrying more than 36 passengers should be applied. Accordingly, Regulations 21 and 22 on Safe Return to Port (SRtP)[†] should be applied, and the shipbuilding cost may increase considerably.

As it is stipulated to issue a Special Purpose Ship Safety Certificate after international convention inspection under the Ship Safety Act and its Enforcement Ordinance, it is also prescribed that the SPS Code [Resolution A.534(13)] be applied to special purpose ships under Article 4 of the Ship Safety Act’s administrative regulations. This study will review several foreign cases in order to look at the appropriateness of enacting the SPS Code as the Notice of the Ministry of Oceans and Fisheries.

- and crew notification and mustering;
- .6 external communication;
- .7 fire main system;
- .8 fixed fire-extinguishing systems;
- .9 fire and smoke detection system;
- .10 bilge and ballast system;
- .11 power-operated watertight and semi-watertight doors;
- .12 systems intended to support “safe areas” as indicated in paragraph 5.1.2;
- .13 flooding detection systems; and
- .14 other systems determined by the Administration to be vital to damage control efforts.

Table 1: The SPS Code certificates issued since 2010 (KR)

NO.	Gross Ton.	Ship's Name	Classification of Ships	Delivery Date	Cert. Issued Date	Nationality
1	4,108	HANWOORI	SPECIAL PURPOSE SHIP (TRAINING VESSEL)	1989-08-18	2017-02-16 2012-03-06 2010-04-30	KOREA
2	9,196	SEGERO	SPECIAL PURPOSE SHIP (TRAINING VESSEL)	2018-12-27	2018-12-27	KOREA
3	3,242	SAE DONG BAEK HO	SPECIAL PURPOSE SHIP (Fishery TRAINING VESSEL)	2019-01-16	2019-01-16	KOREA
4	5,255	HANBND0	SPECIAL PURPOSE SHIP (TRAINING VESSEL)	2017-11-24	2017-11-24	KOREA
5	3,242	ARA	SPECIAL PURPOSE SHIP (FISHERY TRAINING VESSEL)	2018-08-30	2018-08-30	KOREA
6	1,920	HANMIR	SPECIAL PURPOSE SHIP (FISHERY TRANING SHIP)	2018-11-29	2018-11-29	KOREA
7	9,196	HANNARA	SPECIAL PURPOSE SHIP (TRAINING VESSEL)	2019-02-28	2019-02-28	KOREA
8	3,242	SAE HAE RIM	SPECIAL PURPOSE SHIP (Fishery TRAINING VESSEL)	2018-12-27	2018-12-27	KOREA
9	4,701	SAENURI	SPECIAL PURPOSE SHIP (TRAINING VESSEL)	2003-03-21	2018-11-29 2013-01-10 2007-12-22	KOREA
10	3,644	SAE YU DAL	SPECIAL PURPOSE SHIP (TRAINING VESSEL)	1993-10-28	2018-07-18 2013-07-23 2008-07-28 2004-02-18	KOREA

2.2 The SPS Code Certificates Issued in the Republic of Korea

Since 2010, ships to which special purpose safety certificates have been issued are training ships from national maritime universities and the Korea Institute of Maritime and Fisheries Technology (KIMFT) and are as shown in <Table 1>.

The training ship of one of the national maritime universities delivered in 2019 is specified as other ships (training ships) in the ship inspection certificate and does not carry Cargo Ship Safety Radio Certificate, Cargo Ship Safety Construction Certificate, Cargo Ship Safety Equipment Certificate, or Cargo Ship Safety Certificate on board, but rather carries the Special Purpose Ship Safety Certificate.

The ships in <Table 1> are part of training ships from marine and maritime universities and the KIMFT and hold Special Purpose Ship Safety Certificates according to the SPS Code. The training ships not mentioned in <Table 1> are affected by the standards of cargo ships. As above, the ships to which the SPS Code is applied are not clearly defined by national laws and regulations and are not mandatory, so that ship owners and shipbuilders, among others, tend to choose the one that is advantageous to them. This raises the question of whether a ship managed in accordance with

the SPS Code can guarantee safety at sea.

Cadets on training ships are classified as special personnel under the SPS Code, but they are classified as temporary passengers according to Article 5 of the Enforcement Ordinance of the Ship Safety Act.

Scientists on research ships (currently classified as other ships) operated by the Korea Institute of Ocean Science & Technology and Korea Polar Research Institute are also special personnel under the SPS Code, but are boarded as temporary passengers. In addition, since the Industrial Person, under discussion at the IMO, is being developed to establish specific standards in Chapter XV of SOLAS, a clear revision of the laws on temporary passengers should be supported accordingly.

3. Review of SPS Code Application of Major Shipping Countries

3.1 United States of America

In the United States of America (USA), special purpose ships are built in accordance with the SPS Code, and the US government does not accept the Code as a whole, but incorporates it into its own regulations. Although it is not consistent with the IMO's SPS Code, 46 CFR[‡] § 199 provides a domestic definition for special purpose

[‡] Code of Federal Regulations (CFR).

ships and regulates itself separately from the IMO SPS Code.[§]

This provision stipulates that special purpose ship means “a mechanically self-propelled ship carrying more than 12 special personnel including passengers and thus includes oceanographic research ships and training ships.”** In addition, Title 46, Chapter 1, Part 199.10 of the CFR describes passenger ships as general passenger ships, special purpose ships carrying more than 50 special personnel, and special purpose ships carrying not more than 50 special personnel (if the ships meet the structural fire protection requirements in this chapter).††

In addition, cargo ships are classified as cargo ships, tankers, and special purpose ships carrying not more than 50 special personnel (if the ships do not meet the structural fire protection requirements in this chapter). The American Bureau of Shipping (ABS) has prepared “Guidance notes on the Application of Special Purpose Ship Requirements to Offshore Support Vessels” and this is applied as a non-mandatory standard. In accordance with Article 5-1-2 of the ABS Rules for Building and Classing Offshore Support Vessels (OSV Rules), the ABS gives special purpose ship notation to offshore support vessels. In the USA, it can be seen that special purpose ships are separately set and regulated within the categories of passenger ships and cargo ships.

3.2 Canada

The SPS Code is enacted in Canada through the Transport publication titled “Acceptance of an Alternative Regulatory Regime for Inspection, Construction and Safety Equipment (TP 13585 E).”‡‡ Article 2.4 of Annex I of the TP 13585 E stipulates that the IMO SPS Code [Code of Safety for Special Purpose Ships, 2008, Resolution MSC.266 (84)] be applied as an alternative to the SOLAS Convention.§§ Therefore, the SPS Code is applied to Canadian national laws. It is included in the Transport publication and only refers to the SPS Code rather than enacting a separate statute to regulate the same contents as the Code.

§ 46 CFR § 199.30 - Definitions. Retrieved from: <https://www.law.cornell.edu/cfr/text/46/199.30>. Accessed November 20, 2020.

** 46 CFR § 199.30 Special purpose vessel means a mechanically self-propelled vessel which by reason of its function carries on board more than 12 special personnel including passengers. Special purpose vessels include oceanographic research vessels and nautical school vessels.

†† 46 CFR § 199.10 - Applicability. Retrieved from: <https://www.law.cornell.edu/cfr/text/46/199.10>. Accessed November 20, 2020.

‡‡ Section 2.4, Annex 1 - Acceptance of an Alternative Regulatory Regime for Inspection, Construction and Safety Equipment (TP 13585 E). Retrieved from <https://www.tc.gc.ca/eng/marinesafety/tp-tp13585-policy-menu-4265.htm>. Accessed November 20, 2020.

3.3 United Kingdom

The SPS Code is regulated in the MGN 515(M) “Special Purpose Ships (SPS) Code-Application to Offshore Vessels” in the United Kingdom (UK). MGN 515(M) was intended to apply the IMO SPS Code to UK Ships and non-UK ships operating within UK ports and/or waters in the offshore sector. In addition, the OSV are subject to the MGN 516(M) “Ship Construction and Equipment: Use and application of IMO Codes and Guidelines for Offshore Vessels.”***

3.4 Marshall Islands and Panama

In Marshall Islands, the 2008 SPS Code is applicable to all ships carrying more than 12 special personnel, certified on or after 13 May 2008. For ships constructed before 13 May 2008, it is applied as far as it is reasonable and practicable. While the application of the SPS Code is limited to ships of 500 gross tonnage and above, the Administration applies the standards to all special purpose ships irrespective of tonnage.

Additionally, a vessel shown to meet the SPS Code, which is intended to carry 12 or less special personnel, may also be certified as a special purpose ship in order to meet certain Coastal Administration requirements.†††

Panama‡‡‡ informed all ship-owners/operators, Class and Recognized Organizations of the adoption of the SPS Code through the Marine circular MMC-288. This Code facilitates the operation of specialized types of ships with unusual design and operational characteristics for special personnel, who are neither crew members nor passengers, and adopted the SPS Code 2008 and SPS Code 1983. It is stipulated that the Administration shall apply this code as far as reasonable and practicable to special purpose ships less than 500 gross tonnage. Considering that existing vessels may not comply with the requirements of the SPS Code 2008, special purpose ships constructed before April 2014 but after 17 November 1983 will continue to apply the requirements of the SPS Code 1983.

§§ Annex 1 - Acceptance of an Alternative Regulatory Regime for Inspection, Construction and Safety Equipment (TP 13585 E)

2.4 Alternative IMO Instruments

2.4.1 Vessels of particular design for which an alternative IMO instrument exist may comply with these instruments as an alternative to the SOLAS Convention:

- a. International Code of Safety for High-Speed Craft, 2000, Resolution MSC.97 (73)
- b. Code of Safety for Special Purpose Ships, 2008, Resolution MSC.266 (84)

*** Paragraph 1.5 of the MGN 515(M).

††† Marine Notice 2-011-34 of the Republic of the Marshall Islands.

‡‡‡ Panama Maritime Authority Merchant Marine Circular MMC-288.

3.5 Australia

In Australia, the SPS Code is applied by Marine Order 50 (Special Purpose Vessels) under the Navigation Act 2012. The Marine Order 50 is intended to provide for matters relating to the construction, equipment, and operation of special purpose vessels and the training requirements for special personnel. If a special purpose ship registered in a country that has not ratified the SPS Code operates within the Australian territorial seas, it is required to have a certificate of compliance for the Code issued by the relevant flag state or the member society of the International Association of Classification Societies.^{§§§}

3.6 Summary

In most countries, the SPS Code has been enacted as a national legislation. By enacting these national laws, the ships in those countries have clear standards to follow. In the Republic of Korea, even though the Special Purpose Ship Safety Certificate is specified, there is no law stipulating whether or not to comply with the SPS Code and it is insufficient in this matter. Therefore, the IMO SPS Code should be applied for ships subject to the SPS Code, but not to the national law. If a national law is established, it can lead to positive results in terms of a more efficient management and enhancement of the ship's safety, thereby improving legal certainty.

4. Conclusion

The Ship Safety Act makes provision for the issuance of Special Purpose Ship Safety Certificate in compliance with provisions of the SPS Code, but there is no specific public notice regarding the special purpose ships yet, resulting in legal insufficiency. Shipowners may experience confusion when constructing a special purpose ship carrying more than 12 special personnel, for instance, training ships of marine and maritime universities and the KIMFT. If there are no clear grounds on national law regarding special purpose ships, it might have a negative impact on ships' safety because the improved safety measures under the SPS Code would not be applicable.^{****}

^{§§§} AMSA Marine Order 50 (Special purpose vessels) 2012.

^{****} Under the SPS Code, the improved safety measures for passenger ships (chapter III of SOLAS) can be applied

^{††††} Article 26 of the Ship Safety Act (Standards for Ship Facilities) Ship facilities must comply with the standards for ship facilities determined and notified by the Minister of Oceans and Fisheries.

It is, therefore, necessary to have a national legislation in relation to the SPS Code. As the SPS Code provides standards regarding the construction and equipment of special purpose ships other than ships to which the SOLAS Convention can be applied, it is considered that it would be appropriate to enact a public notice based on Article 26 of the Ship Safety Act (Standards for Ship Facilities).^{††††}

Furthermore, it is also necessary to consider the amendments on temporary passengers in Article 5 of the Enforcement Ordinance of the Ship Safety Act accordingly.^{††††}

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- [4] Legal Information Institute, 46 CFR § 199.10 (Applicability), <https://www.law.cornell.edu/cfr/text/46/199.10>, Accessed November 20, 2020.
- [5] Transport Canada, Section 2.4, Annex 1 [Acceptance of an Alternative Regulatory Regime for Inspection, Construction and Safety Equipment] (TP 13585 E)],

^{††††} Due to the limited space of paper, for the proposed Public Notice (Standards on the Safety for Special Purpose Ships) of the Ministry of Oceans and Fisheries and the proposed amendments to Article 5 of the Enforcement Ordinance of the Ship Safety Act, please refer to "Ministry of Oceans and Fisheries (2019), Rationalization, etc of the Ship Inspection System, pp.205-228."

<https://www.tc.gc.ca/eng/marinesafety/tp-tp13585-policy-menu-4265.htm>, Accessed November 20, 2020.

- [6] MGN 515(M) Special Purpose Ships (SPS) Code.
- [7] Marine Notice 2-011-34 of the Republic of the Marshall Islands.
- [8] Panama Marine Authority Merchant Marine Circular MMC-288.
- [9] AMSA Marine Order 50 (Special purpose vessels), 2012.
- [10] Ship Safety Act.
- [11] IMO Res. A. 534 (13).