Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers

Object of Amendment

Rules for the Survey and Construction of Steel Ships Parts H and R
Guidance for the Survey and Construction of Steel Ships Parts D, H, S and R

Reason for Amendment

IACS Unified Requirement (UR) F44, safety requirements for fore peak non-hazardous ballast tanks and hazardous ballast tanks within cargo areas operated with a common ballast system, and IACS Unified Interpretation (UI) SC211, the interpretation for protection of cargo areas, have been published, and their requirements have already been incorporated into the NK Rules.

The Ballast Water Management Convention entered into force in 2017, making the installation of ballast water treatment systems mandatory. As a result, there has been an increase in the demand for a common ballast system that can be used for the ballast operations of fore peak non-hazardous ballast tanks and hazardous ballast tanks located within the cargo area. Therefore, UR F44 was amended to expand its application to chemical tankers and to stipulate requirements relevant to chemical tankers. Following this amendment, UI SC211 was amended in order to clarify fore peak space arrangements of oil and chemical tankers.

Accordingly, relevant requirements are amended.

Outline of Amendment

Amends safety requirements related to the connecting of ballast piping between the fore peak non-hazardous ballast tanks and hazardous ballast tanks of oil and chemical tankers specified in Part D of the Guidance for the Survey and Construction of Steel Ships, etc.
In addition, the requirements for fore peak space arrangements in Parts S and R of the Guidance for the Survey and Construction of Steel Ships are amended.

Effective Date and Application

1. This draft amendment applies to ships for which the date of the contract for construction is on or after 1 January 2026.
2. Notwithstanding the preceding 1, this amendment may be applied in advance upon request.

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

ID:DX24-19

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS **Part H ELECTRICAL INSTALLATIONS** **Chapter 4 ADDITIONAL REQUIREMENTS FOR SHIPS CARRYING SPECIAL CARGOES** **4.3 Tankers and Ships Carrying Dangerous Chemicals in Bulk Having a Flashpoint Not Exceeding 60 °C** **4.3.1 Classification of Hazardous Areas*** The following areas or spaces in tankers and ships carrying dangerous chemicals in bulk having flashpoints not exceeding 60 °C are to be classified as Zone 0, Zone 1, and Zone 2 as shown below: ((1) and (2) are omitted.) (3) Zone 2 ((a) to (g) are omitted.) (h) Ballast tanks segregated from cargo tanks by cofferdams, provided that their piping systems connect to ballast tanks adjacent to the cargo tanks (related to **14.3.2-1, Part D of the Rules**)	**RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS** **Part H ELECTRICAL INSTALLATIONS** **Chapter 4 ADDITIONAL REQUIREMENTS FOR SHIPS CARRYING SPECIAL CARGOES** **4.3 Tankers and Ships Carrying Dangerous Chemicals in Bulk Having a Flashpoint Not Exceeding 60 °C** **4.3.1 Classification of Hazardous Areas*** The following areas or spaces in tankers and ships carrying dangerous chemicals in bulk having flashpoints not exceeding 60 °C are to be classified as Zone 0, Zone 1, and Zone 2 as shown below: ((1) and (2) are omitted.) (3) Zone 2 ((a) to (g) are omitted.) (Newly added)	IACS UR F44 Rev.3 para.1.1f)

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS **Part R FIRE PROTECTION, DETECTION AND EXTINCTION** **Chapter 3 DEFINITIONS** **3.2 Definitions** **3.2.6 Cargo Area***	**RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS** **Part R FIRE PROTECTION, DETECTION AND EXTINCTION** **Chapter 3 DEFINITIONS** **3.2 Definitions** **3.2.6 Cargo Area**	IACS UI SC211 Rev.1 Interpretation 2

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS	**GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**	
Part D MACHINERY INSTALLATIONS	**Part D MACHINERY INSTALLATIONS**	
D13 PIPING SYSTEMS	**D13 PIPING SYSTEMS**	
D13.2 Piping	**D13.2 Piping**	IACS UR F44 Rev.3 para.1.1f)
D13.2.5 Bulkhead Valves **6** Notwithstanding **13.2.5-2, Part D of the Rules**, the bulkhead valve required by **D14.3.2-1(3)(g)** is to be located at the fore side of the collision bulkhead.	**D13.2.5 Bulkhead Valves** (Newly added)	
D14 PIPING SYSTEMS FOR TANKERS	**D14 PIPING SYSTEMS FOR TANKERS**	
D14.3 Piping Systems for Cargo Oil Pump Rooms, Cofferdams and Tanks adjacent to Cargo Oil Tanks	**D14.3 Piping Systems for Cargo Oil Pump Rooms, Cofferdams and Tanks adjacent to Cargo Oil Tanks**	
D14.3.2 Ballast Tanks adjacent to Cargo Oil Tanks **1** Ballast piping systems of the forward ballast tanks, etc. (**14.3.2-1, Part D of the Rules**) Ballast piping systems, etc. serving ballast tanks whose forward end is located afore of collision bulkheads and are	**D14.3.2 Ballast Tanks adjacent to Cargo Oil Tanks** **1** Ballast piping systems of the forward ballast tanks, etc. (**14.3.2-1, Part D of the Rules**) Ballast piping systems, etc. serving ballast tanks whose forward end is located afore of collision bulkheads and are	

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
adjacent to cargo oil tanks (hereinafter referred to as "forward ballast tanks") are to be in accordance with the following requirements in addition those in **14.3.2-2** to **14.3.2-4, Part D of the Rules**. However, ballast piping systems, in cases where they are as specified in the following **(2)** or **(3)** and serve ballast tanks which are not adjacent to cargo oil tanks, but whose forward end is located afore of collision bulkheads, are considered to be piping systems of forward ballast tanks and, therefore, are to be in accordance with the requirements for forward ballast tanks. (1) Arrangements are to be made so that any ballast water in forward ballast tanks, except for those cases specified in the following **(2)** or **(3)**, can be ballasted/deballasted by pumps located in the forward part of the cargo tanks. (2) In cases where ballast pipes of forward ballast tank are led to ballast pumps by passing through cargo oil tanks, except in cases where prohibited by **14.2.7, Part D of the Rules** or **D14.1.1**, the following requirements are to be complied with: (a) Flange joints with a nominal pressure less than 1 *MPa* are not to be used for pipe joints. (b) Stop valves are to be provided afore of collision bulkheads in addition to those bulkhead valves specified in **13.2.5-2, Part D of the Rules**. (c) Ballast pumps are to be provided in cargo oil pump rooms or other subdivisions that are without sources of ignition. (d) The requirements of **(a)** to **(g)** in the following **(3)** are to be complied with. (3) In cases where ballast pipes of forward ballast tanks are led to other ballast piping systems serving ballast tanks which are adjacent to cargo oil tanks, the	adjacent to cargo oil tanks (hereinafter referred to as "forward ballast tanks") are to be in accordance with the following requirements in addition those in **14.3.2-2** to **14.3.2-4, Part D of the Rules**. However, ballast piping systems, in cases where they are as specified in the following **(2)** or **(3)** and serve ballast tanks which are not adjacent to cargo oil tanks, but whose forward end is located afore of collision bulkheads, are considered to be piping systems of forward ballast tanks and, therefore, are to be in accordance with the requirements for forward ballast tanks. (1) Arrangements are to be made so that any ballast water in forward ballast tanks, except for those cases specified in the following **(2)** or **(3)**, can be ballasted/deballasted by pumps located in the forward part of the cargo tanks. (2) In cases where ballast pipes of forward ballast tank are led to ballast pumps by passing through cargo oil tanks, except in cases where prohibited by **14.2.7, Part D of the Rules** or **D14.1.1**, the following requirements are to be complied with: (a) Flange joints with a nominal pressure less than 1 *MPa* are not to be used for pipe joints. (b) Stop valves are to be provided afore of collision bulkheads in addition to those bulkhead valves specified in **13.2.5-2, Part D of the Rules**. (c) Ballast pumps are to be provided in cargo oil pump rooms or other subdivisions that are without sources of ignition. (d) The requirements of **(a)** to **(e)** in the following **(3)** are to be complied with. (3) In cases where ballast pipes of forward ballast tanks are led to other ballast piping systems serving ballast tanks which are adjacent to cargo oil tanks, the	IACS UR F44 Rev.3 para.1.1a), f)

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
following requirements are to be complied with (samples of the arrangements and the applicable provisions to forward ballast tanks and enclosed spaces are shown in **Fig. D14.3.2**):	following requirements are to be complied with:	
(a) In applying the requirements specified in **Part H of the Rules**, forward ballast tanks are to be considered to be hazardous areas in either of the following (i) or (ii) cases:	(a) In applying the requirements specified in **Part H of the Rules**, forward ballast tanks are to be considered to be hazardous areas as specified in **4.3.1(2)(c), Part H of the Rules**.	
(i) In cases where forward ballast tanks are adjacent to cargo oil tanks, said tanks are considered to be Zone 1 as specified in **4.3.1(2)(c), Part H of the Rules.** Vent pipe openings provided for forward ballast tanks are to be located on open decks at an appropriate distance of not less than 3 *m* away from any sources of ignition. In addition, the area around such vent pipe openings is defined as a hazardous area in accordance with **4.3.1(2)(i), Part H of the Rules** and **4.3.1(3)(a), Part H of the Rules**. This, however, does not apply to the sounding pipe openings and manholes of forward ballast tanks.	(b) Vent pipe openings provided for forward ballast tanks are to be located on open decks at an appropriate distance of not less than 3 *m* away from any sources of ignition. In addition, the area around such vent pipe openings is defined as a hazardous area in accordance with **4.3.1(2)(i), Part H of the Rules** and **4.3.1(3)(a), Part H of the Rules**.	
(ii) In cases where forward ballast tanks are separated from the cargo oil tanks by cofferdams, said tanks are considered to be Zone 2 as specified in **4.3.1(3)(h), Part H of the Rules**. In such cases, vent pipe openings provided for forward ballast tanks are to be located on open decks.	(Newly added)	
(b) Means are to be provided, on open decks, to allow measurement of the concentration of toxic and flammable gases within forward ballast tanks. In	(c) Means are to be provided, on open decks, to allow measurement of the concentration of flammable gases within forward ballast tanks. In this case,	IACS UR F44 Rev.3 para.1.1g)

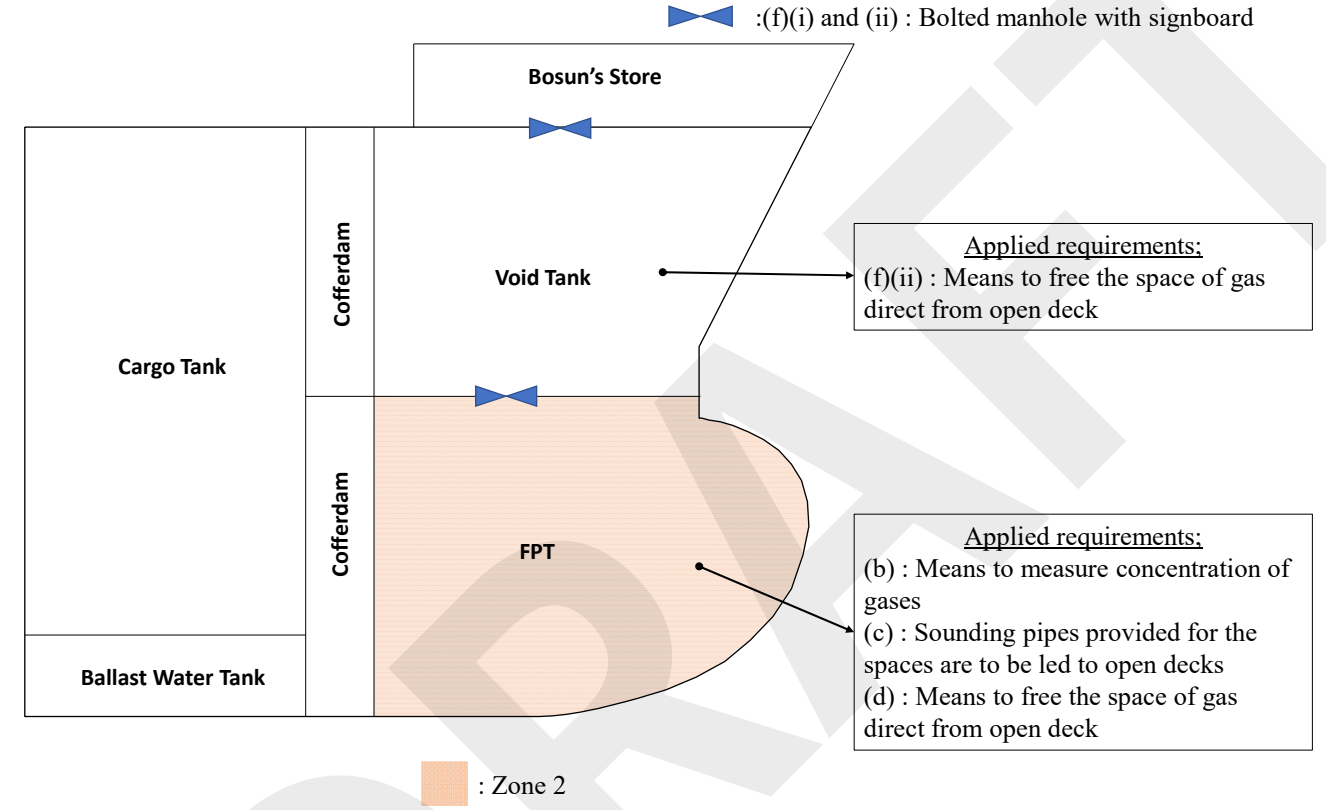
Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
this case, such means may be a combination of sampling pipes and portable detecting instruments specified in **4.5.7(2)(a), Part R of the Rules** or **13.2.1, Part S of the Rules**. Such sampling pipes may be those sounding pipes specified in the following **(c)** in cases where deemed appropriate by the Society.	such means may be a combination of portable detecting instruments and sampling pipes. Such sampling pipes may be those sounding pipes specified in the following **(d)** in cases where deemed appropriate by the Society.	
(c) Sounding pipes provided for forward ballast tanks are to be led to open decks.	(d) Sounding pipes provided for forward ballast tanks are to be led to open decks.	IACS UR F44 Rev.3 para.1.1d)
(d) Means to free forward ballast tanks of gas direct from open decks are to be provided.	(Newly added)	IACS UR F44 Rev.3 para.1.1e)
(e) Access into forward ballast tanks is to be direct from open decks.	(e) Access into forward ballast tanks is to be direct from open deck. However, indirect access from open decks into the forward ballast tanks through enclosed spaces may be acceptable provided that the following (i) or (ii) is satisfied.	IACS UR F44 Rev.3
(f) Notwithstanding (e) above, indirect access from open decks into the forward ballast tanks through enclosed spaces such as cofferdams (hereinafter referred to as "entry spaces") may be acceptable provided that the following (i) to (iii) are satisfied.		(e), (f): para.1.1b)
(i) Access into forward ballast tanks is to be a gas tight bolted manhole. In this case, a warning sign is to be provided at the manhole stating that the forward ballast tank may only be opened after it has been proven to be toxic and flammable gas free or the electrical equipment which is not electrically safe in the forward ballast tank is isolated.	(i) In cases where enclosed spaces are separated from the cargo oil tanks, access into forward ballast tanks are to be a gas tight bolted manhole located in such enclosed spaces. In this case, a warning sign is to be provided at the manhole stating that the forward ballast tank may only be opened after it has been proven to be gas free or the electrical equipment which is not electrically safe in the enclosed space is isolated.	(f)(i): para.1.1b) (f)(ii): para.2.2a), b) (f)(iii): para.2.1
(ii) In cases where entry spaces are accessed through other enclosed spaces such as a	(Newly added)	

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
bosun store, means to free the entry spaces of gas direct from open decks are to be provided. In addition, access into the entry spaces is to be a gas tight bolted manhole. In such cases, a warning sign is to be provided at the manhole stating that the entry space may only be opened after it has been proven to be toxic and flammable gas free, or any electrical equipment that is not electrically safe in the entry space is isolated.		
(iii) In cases where entry spaces have common boundaries with the cargo tanks, such entry spaces are to satisfy **(a)(i), (b), (c)** and **(d)** above in addition to the relevant requirements of hazardous areas.	(ii) In cases where enclosed spaces have common boundaries with the cargo tanks, such enclosed spaces are to satisfy the relevant requirements of hazardous areas and are, in addition, to be well ventilated.	
(g) In cases where a bow thruster space is provided, the ballast piping passing through the bow thruster room is to be fully welded (e.g. without any flange joints) In addition, the bulkhead valve specified in **13.2.5, Part D of the Rules** is to be located at fore side of collision bulkhead within the forward ballast tank.	(Newly added)	IACS UR F44 Rev.3 para.1.1f)

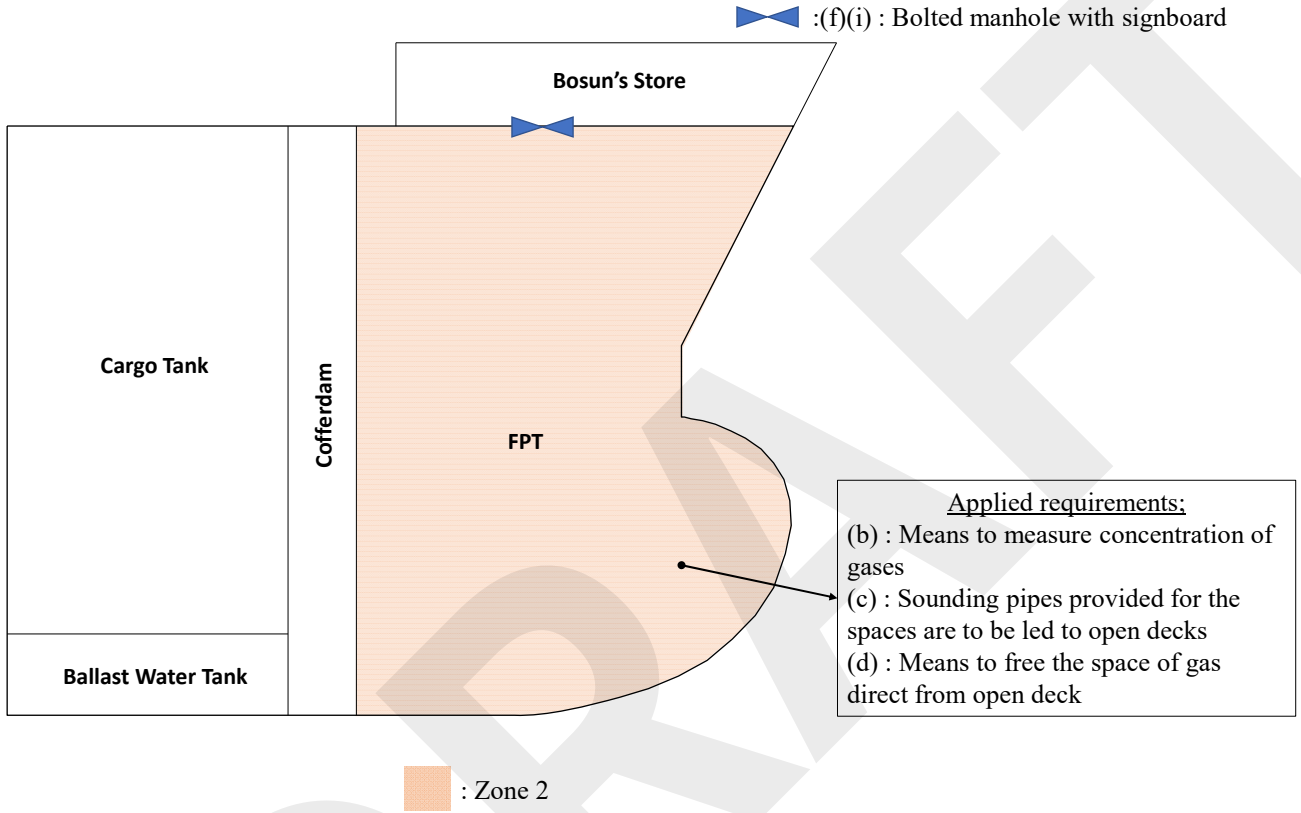
Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
Fig. D14.3.2 (Sample 1) Applicable to both oil tankers and chemical tankers  		IACS UR F44 Rev.3 samples 1, 2, 5, 6 samples 3, 4

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks

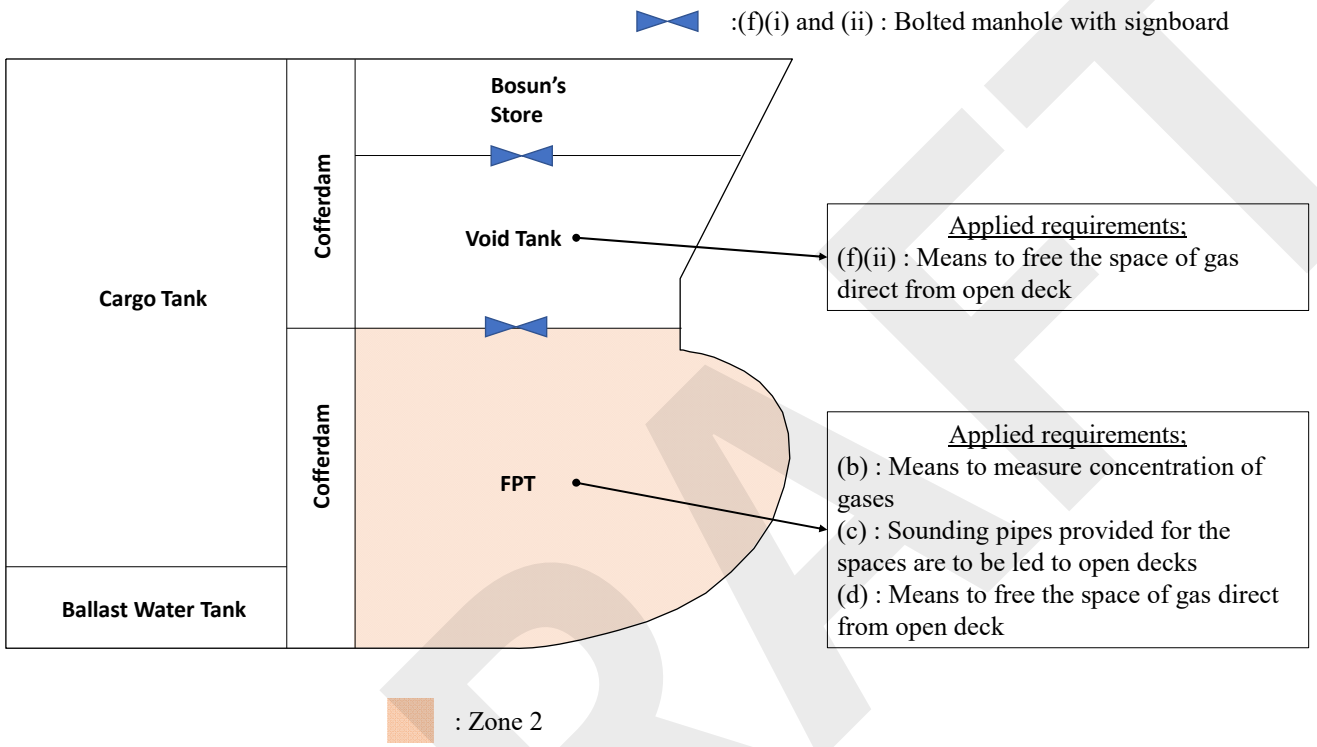
(Sample 2) Applicable to both oil tankers and chemical tankers



Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks

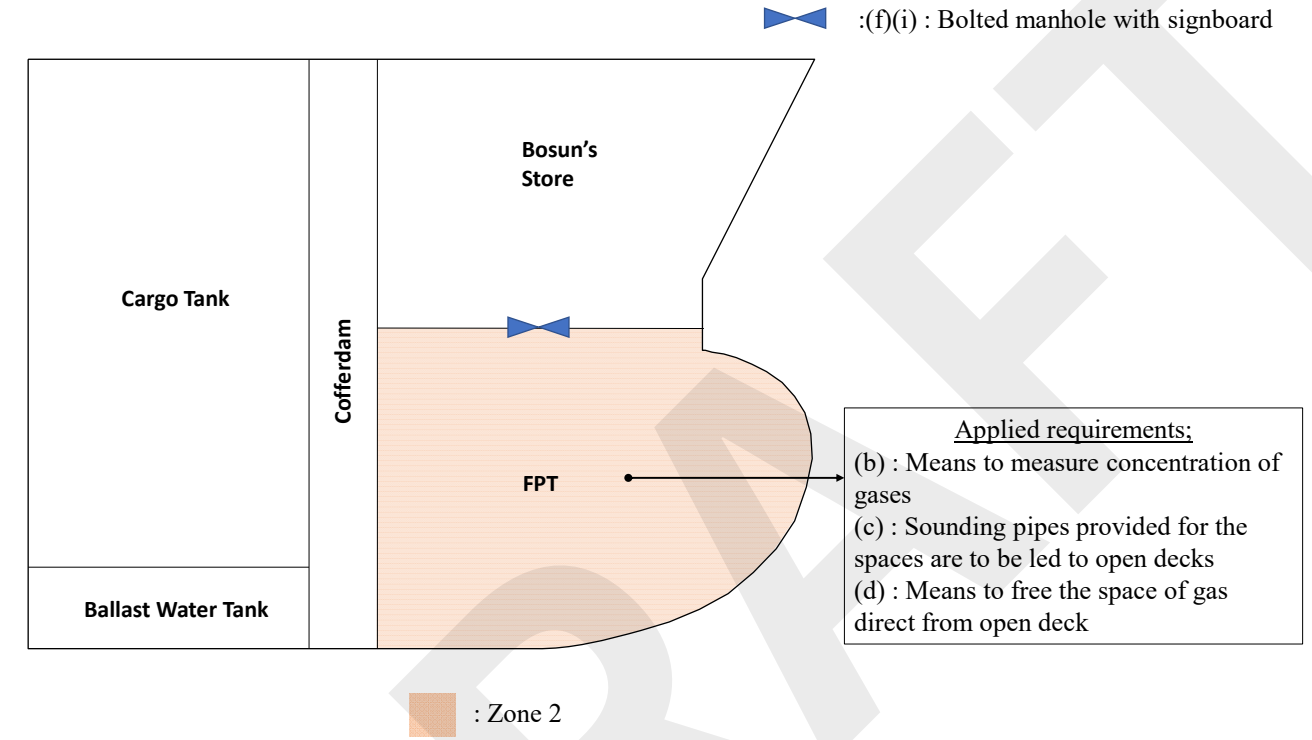
(Sample 3) Applicable to both oil tankers and chemical tankers



Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks

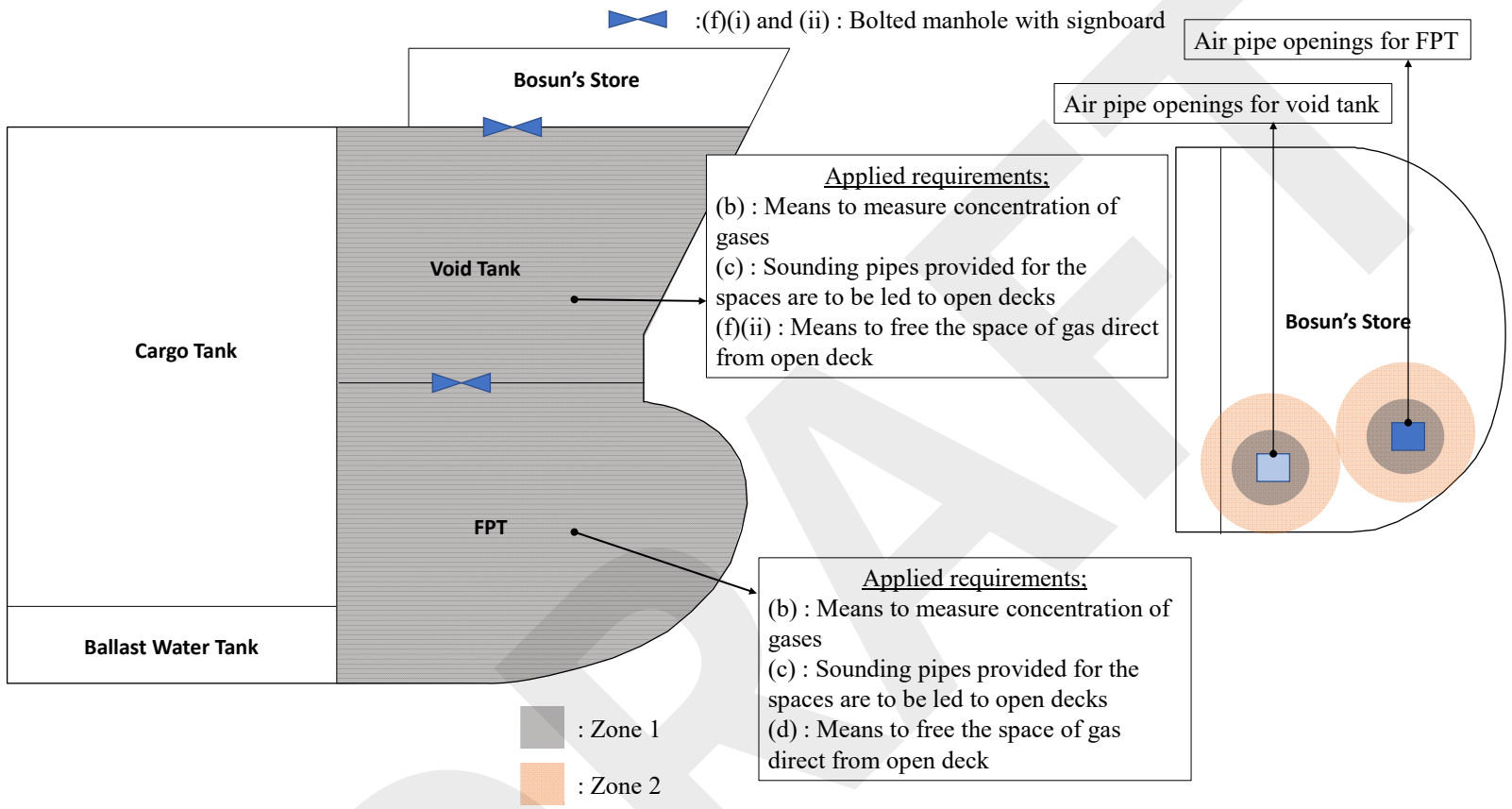
(Sample 4) Applicable to both oil tankers and chemical tankers



Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks

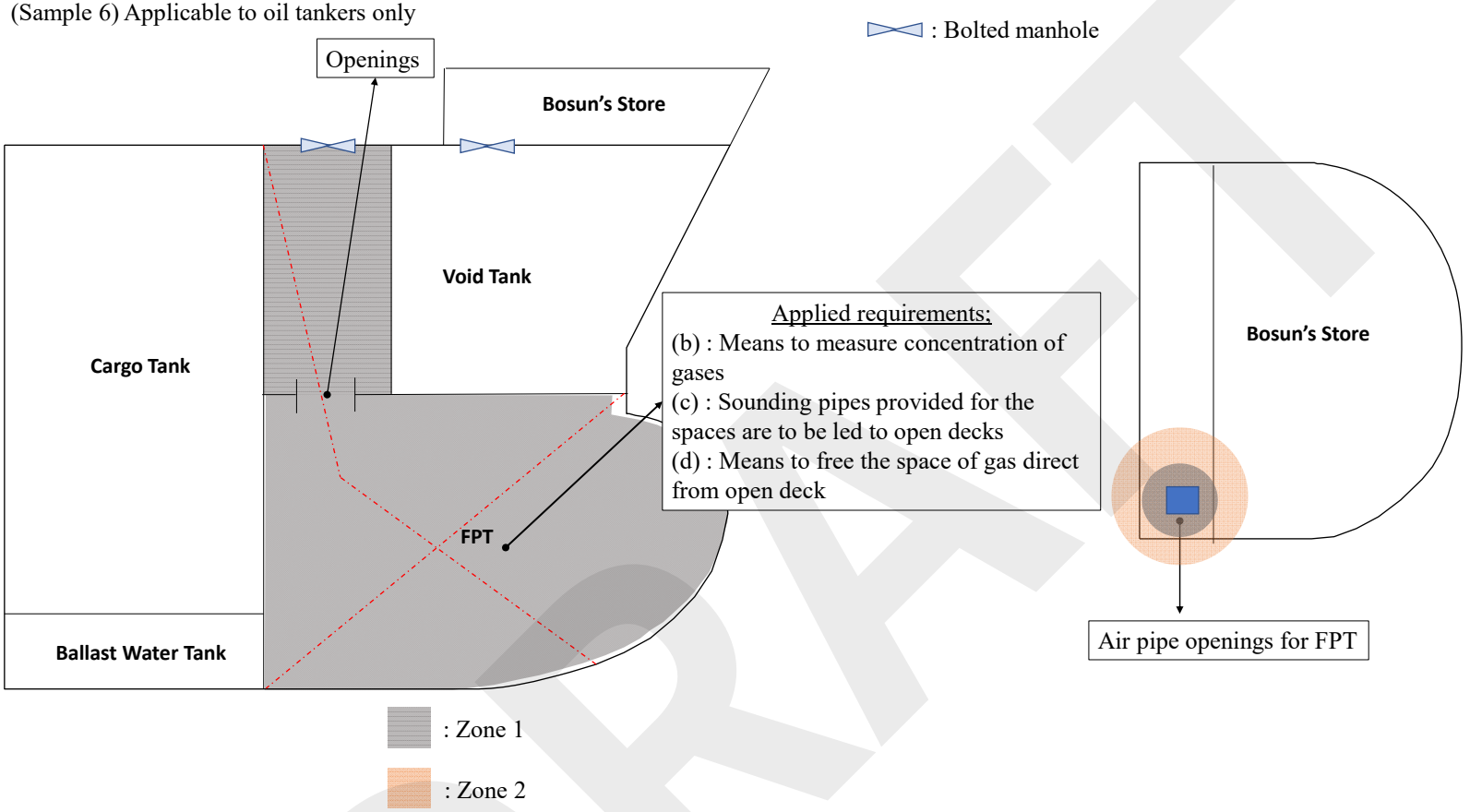
(Sample 5) Applicable to oil tankers only



Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks

(Sample 6) Applicable to oil tankers only



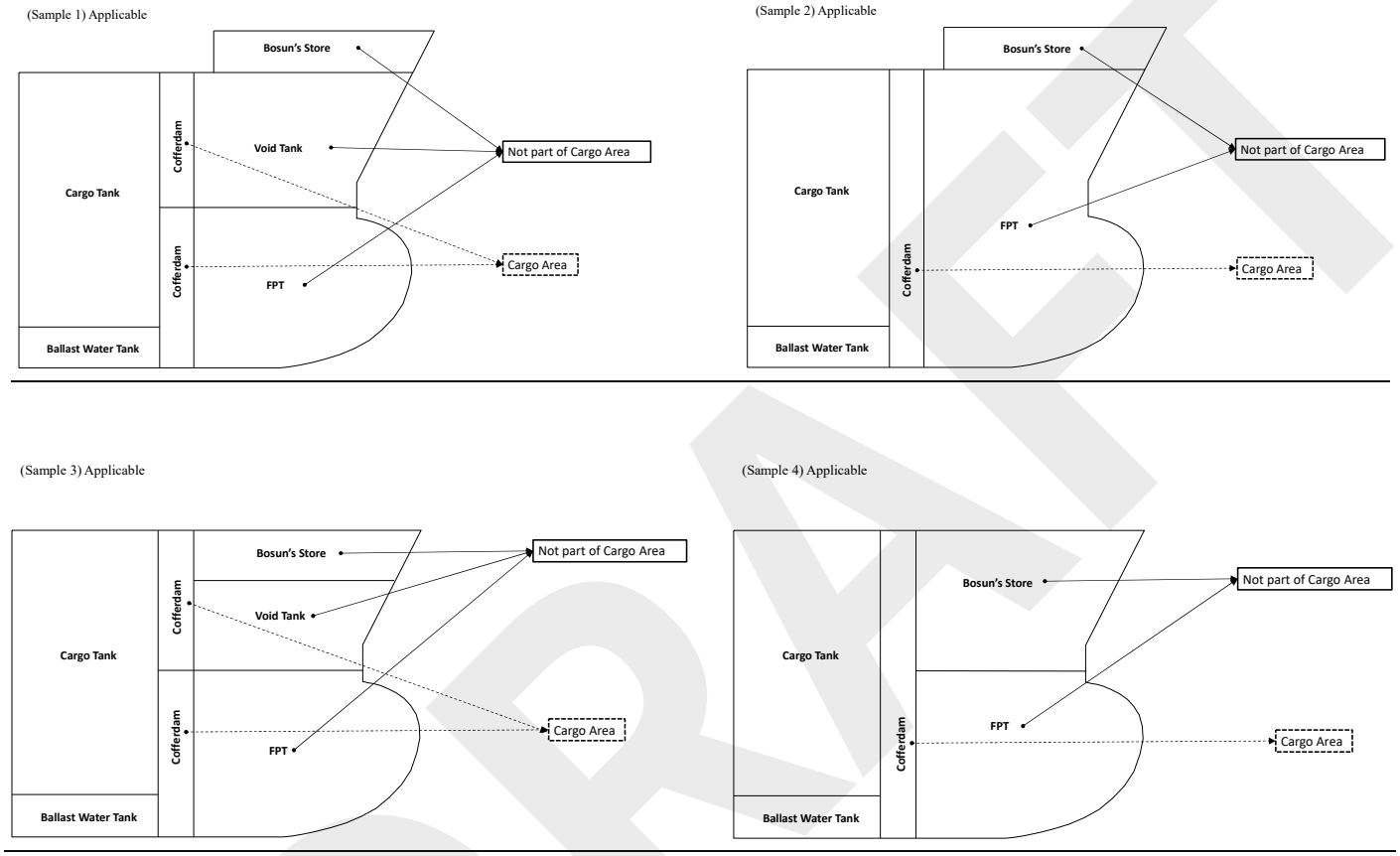
Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS **Part H ELECTRICAL INSTALLATIONS** **H4 ADDITIONAL REQUIREMENTS FOR SHIPS CARRYING SPECIAL CARGOES** **H4.2 Tankers, Ships Carrying Liquefied Gases in Bulk and Ships Carrying Dangerous Chemicals in Bulk** **H4.2.3 Hazardous Areas** **1** The wording "those requirements otherwise specified by the Society" in **4.2.3-4, Part H of the Rules** means the categorization technique specified in 4.1.4 in *IEC* 60092-502 (1999). This technique categorizes those hazardous areas adjacent to any spaces (standard hazardous areas) in which flammable or explosive gas atmospheres are present or likely to occur after taking into account the effectiveness of any sources of release and ventilation (refer to **Fig. H4.2.3-1**). In addition, the wording "those requirements otherwise specified by the Society" in **4.2.3-4, Part H of the Rules** also means **D14.3.2-1(3), Part D of the Guidance,** **R4.5.3-5** and **R11.6.2, Part R of the Guidance**.	**GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS** **Part H ELECTRICAL INSTALLATIONS** **H4 ADDITIONAL REQUIREMENTS FOR SHIPS CARRYING SPECIAL CARGOES** **H4.2 Tankers, Ships Carrying Liquefied Gases in Bulk and Ships Carrying Dangerous Chemicals in Bulk** **H4.2.3 Hazardous Areas** **1** The wording "those requirements otherwise specified by the Society" in **4.2.3-4, Part H of the Rules** means the categorization technique specified in 4.1.4 in *IEC* 60092-502 (1999). This technique categorizes those hazardous areas adjacent to any spaces (standard hazardous areas) in which flammable or explosive gas atmospheres are present or likely to occur after taking into account the effectiveness of any sources of release and ventilation (refer to **Fig. H4.2.3-1**). In addition, the wording "those requirements otherwise specified by the Society" in **4.2.3-4, Part H of the Rules** also means **R4.5.3-5** and **R11.6.2, Part R of the Guidance**.	

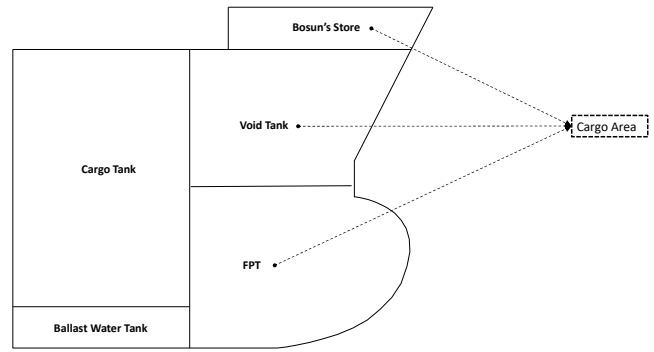
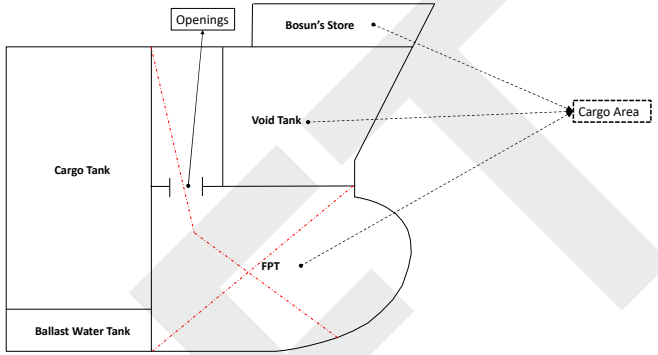
Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

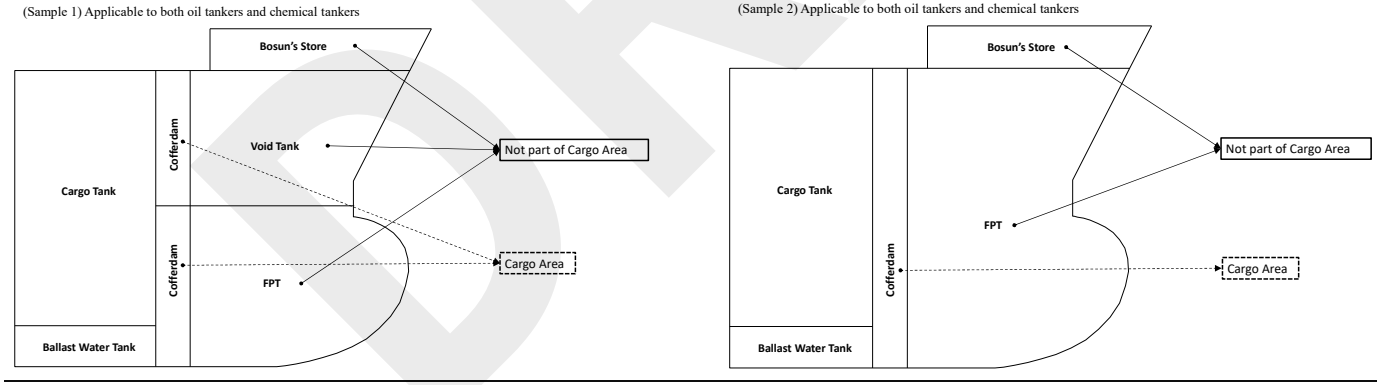
Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS **Part S SHIPS CARRYING DANGEROUS CHEMICALS IN BULK** **S1 GENERAL** **S1.3 Definitions** **S1.3.1 Definitions** **2** The term "cargo area" referred to **1.3.1(5), Part S of the Rules** is to be as follows. (1) The area excludes the fuel oil tanks adjacent to the cargo tanks or slop tanks of the arrangement as given in **Fig. S1.3.1-1**. However, the requirements specified in **3.4, Part S of the Rules** apply. (2) A non-hazardous area in the forecastle space which is protected from cargo tanks by cofferdams, etc. is not to be defined as part of the cargo area. However, compartments located above cofferdams, etc. protecting non-hazardous areas are to be defined as part of the cargo area (refer to **Fig. S1.3.1-3**).	**GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS** **Part S SHIPS CARRYING DANGEROUS CHEMICALS IN BULK** **S1 GENERAL** **S1.3 Definitions** **S1.3.1 Definitions** **2** The term "cargo area" referred to **1.3.1(5), Part S of the Rules** excludes the fuel oil tanks adjacent to the cargo tanks or slop tanks of the arrangement as given in **Fig. S1.3.1-1**. However, the requirements specified in **3.4, Part S of the Rules** apply. (Newly added)	IACS UI SC211 Rev.1 Interpretation 2

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

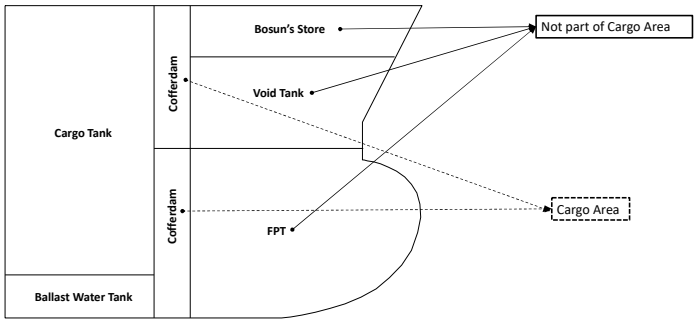
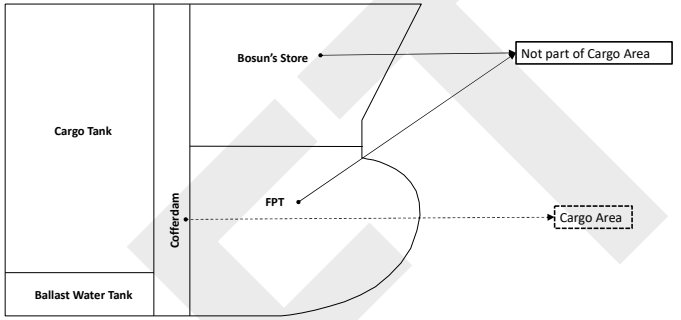
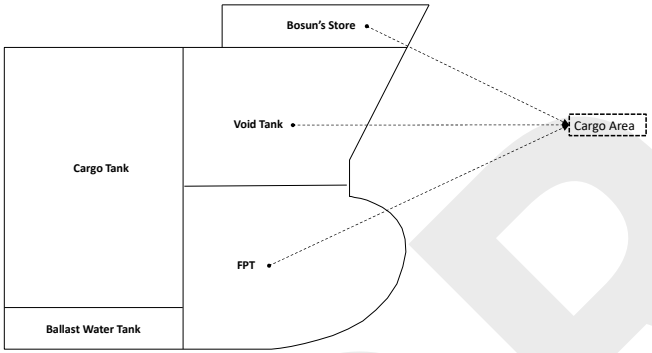
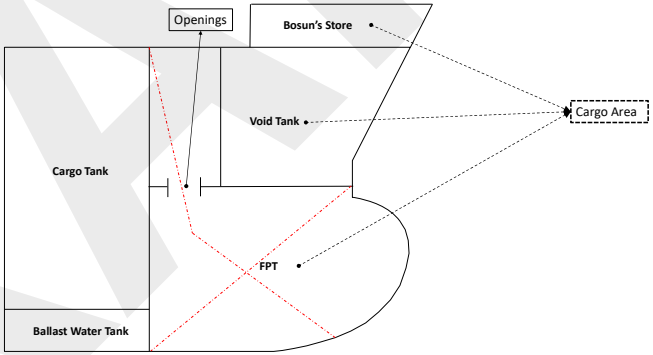
Amended	Original	Remarks
Fig. S1.3.1-3  		IACS UI SC211 Rev.1 Figure 2

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
(Sample 5) Not applicable 	(Sample 6) Not applicable 	

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS **Part R FIRE PROTECTION, DETECTION AND EXTINCTION** **R3 DEFINITIONS** **R3.2 Definitions** **R3.2.6 Cargo Area** The "cargo area" referred to **3.2.6, Part R of the Rules** does not include non-hazardous areas in forecastle spaces that are protected from cargo tanks by cofferdams, etc.. However, it does include compartments located above cofferdams, etc. protecting non-hazardous areas (refer to **Fig. R3.2.6**). Fig. R3.2.6  	**GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS** **Part R FIRE PROTECTION, DETECTION AND EXTINCTION** **R3 DEFINITIONS** **R3.2 Definitions** **(Newly added)**	IACS UI SC211 Rev.1 Interpretation 2 IACS UI SC211 Rev.1 Figure 2

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks
(Sample 3) Applicable to both oil tankers and chemical tankers  (Sample 4) Applicable to both oil tankers and chemical tankers  (Sample 5) Applicable to oil tankers only  (Sample 6) Applicable to oil tankers only  		

Amended-Original Requirements Comparison Table
(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers)

Amended	Original	Remarks

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 January 2026.

2. Notwithstanding the amendments, the current requirements apply to ships for which the date of contract for construction* is before 1 January 2026.

3. Notwithstanding the provision of preceding **2.**, the amendments may apply to ships other than ships for which the application for Classification Survey during Construction is submitted to the Society on and after the effective date upon request by the owner.

* "contract for construction" is defined in the latest version of IACS Procedural Requirement (PR) No.29.

IACS PR No.29 (Rev.0, July 2009)

1. The date of "contract for construction" of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.

2. The date of "contract for construction" of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder.

For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a "series of vessels" if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided:

(1) such alterations do not affect matters related to classification, or

(2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval.

The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed.

3. If a contract for construction is later amended to include additional vessels or additional options, the date of "contract for construction" for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a "new contract" to which **1.** and **2.** above apply.

4. If a contract for construction is amended to change the ship type, the date of "contract for construction" of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

Note:
This Procedural Requirement applies from 1 July 2009.