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	Remarks
RULES FOR THE SURVEY AND	RULES FOR THE SURVEY AND	
CONSTRUCTION OF STEEL SHIPS	CONSTRUCTION OF STEEL SHIPS	
Part H ELECTRICAL INSTALLATIONS	Part H ELECTRICAL INSTALLATIONS	
Chapter 4 ADDITIONAL REQUIREMENTS FOR SHIPS CARRYING SPECIAL CARGOES	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 Tankers and Ships Carrying Dangerous Chemicals in Bulk Having a Flashpoint Not Exceeding 60 °C	IACS UR F44 Rev.3 para.1.1f)
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)	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)	

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

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND	GUIDANCE FOR THE SURVEY AND	
CONSTRUCTION OF STEEL SHIPS	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)	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 adjacent to cargo oil tanks (hereinafter referred to as "forward	Ballast piping systems, etc. serving ballast tanks whose forward end is located afore of collision bulkheads and are adjacent to cargo oil tanks (hereinafter referred to as "forward	

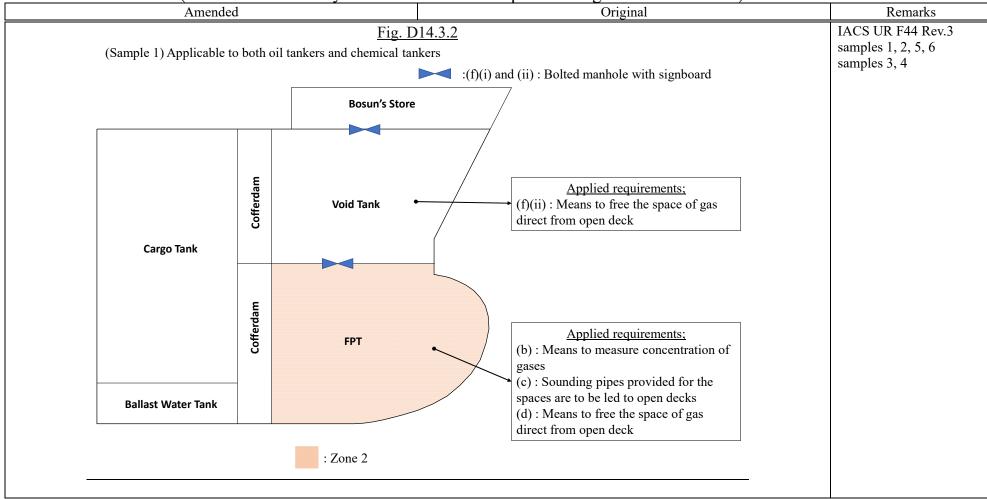
Amended	Original	Remarks
ballast tanks") are to be in accordance with the following requirements in addition those in 14.3.2-2 to 14.3.2-4, Part D of the Rules. However, ballast piping systems, in cases where they are as specified in the following (2) or (3) and serve ballast tanks which are not adjacent 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.	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.	Remarks

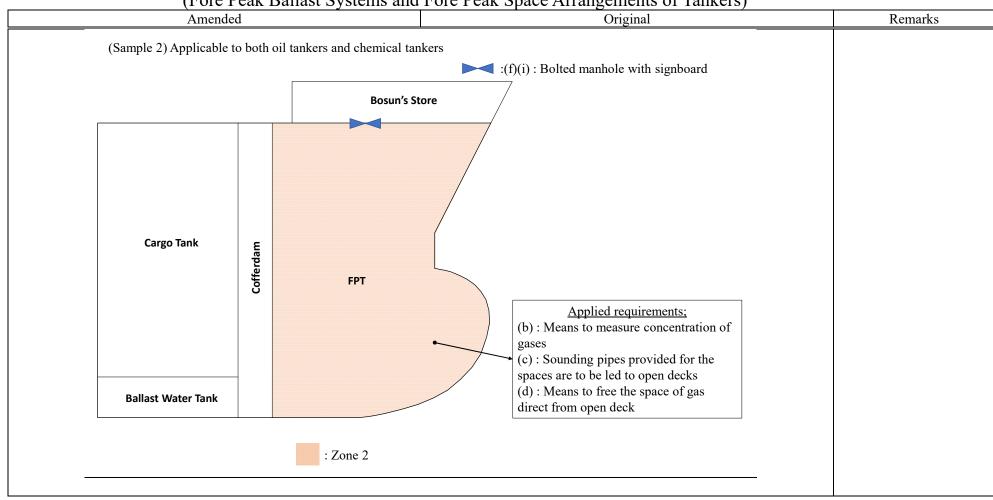
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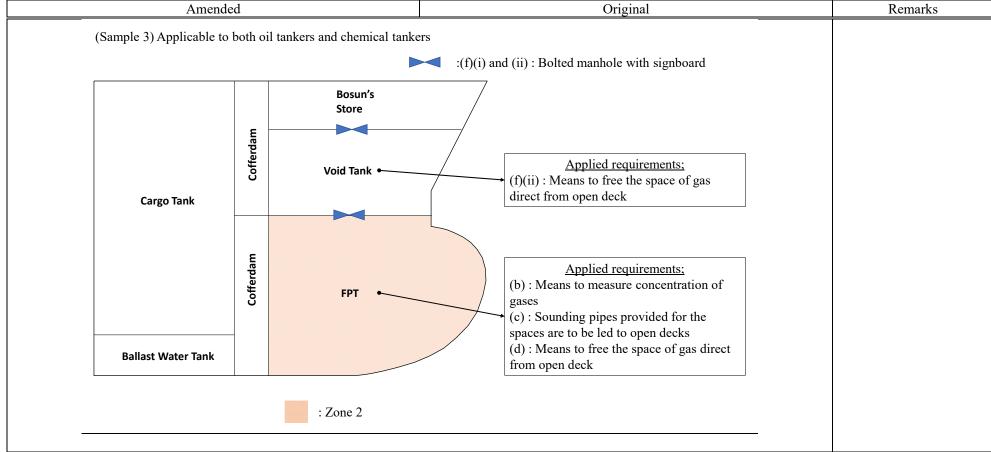
Amended	Original	Remarks
Amended (3) In cases where ballast pipes of forward ballast tanks are led to other ballast piping systems serving ballast tanks which are adjacent to cargo oil tanks, the following requirements are to be complied with (samples of the arrangements and the applicable provisions to forward ballast tanks and enclosed spaces are shown in Fig. D14.3.2): (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: (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. Air 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 air 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. (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, air pipe openings provided for forward ballast tanks are to be	Original (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 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 as specified in 4.3.1(2)(c), Part H of the Rules. (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. (Newly added)	Remarks IACS UR F44 Rev.3 para.1.1a), f)

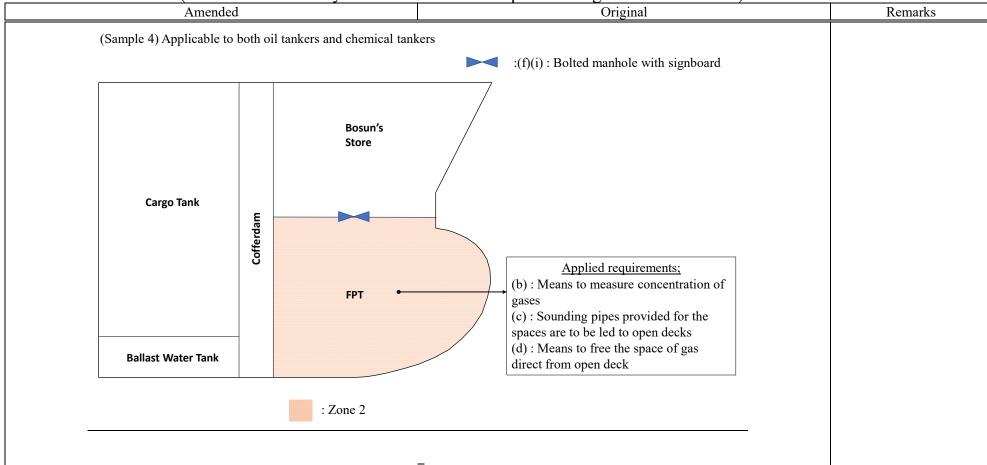
(1 of C 1 car Danast Systems and	Fore Peak Space Arrangements of Tankers)	T .
Amended	Original	Remarks
(b) Means are to be provided, on open decks, to allow measurement of the concentration of toxic and flammable gases within forward ballast tanks. In this case, such means may be a combination of sampling 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).	(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, 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.	IACS UR F44 Rev.3 para.1.1g)
(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. (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. (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. (ii) In cases where entry spaces are accessed 	 (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. (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. (Newly added) 	(e), (f): para.1.1b) (f)(i): para.1.1b) (f)(ii): para.2.2a), b) (f)(iii): para.2.1

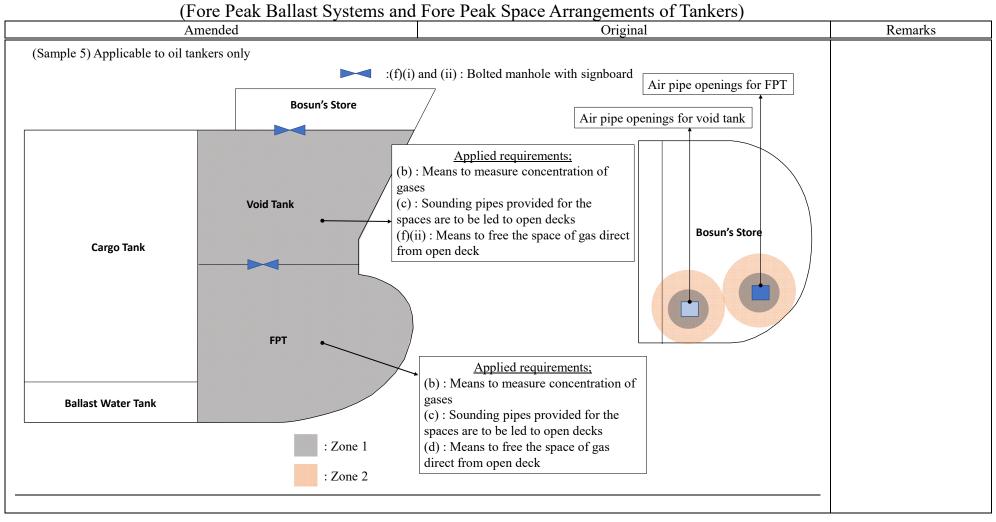
`	Fore Peak Space Arrangements of Tankers)	
Amended	Original	Remarks
through other enclosed spaces such as a		
bosun store, means to free the entry spaces		
of gas direct from open decks are to be		
provided. In addition, access into the entry		
spaces is to be a gas tight bolted manhole. In		
such cases, 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	(ii) In cases where <u>enclosed</u> spaces have	
boundaries with the cargo tanks, such entry	common boundaries with the cargo tanks,	
spaces are to satisfy (a)(i), (b), (c) and (d)	such enclosed spaces are to satisfy the	
<u>above in addition to</u> the relevant	relevant requirements of hazardous areas and	
requirements of hazardous areas.	are, in addition, to be well ventilated.	
(g) In cases where a bow thruster space is provided,	(Newly added)	IACS UR F44 Rev.3
the ballast piping passing through the bow		para.1.1f)
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.		











(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers) Amended Original Remarks (Sample 6) Applicable to oil tankers only : Bolted manhole Openings **Bosun's Store Void Tank** Applied requirements; **Bosun's Store** (b): Means to measure concentration of Cargo Tank (c): Sounding pipes provided for the spaces are to be led to open decks (d): Means to free the space of gas direct from open deck FPT

Air pipe openings for FPT

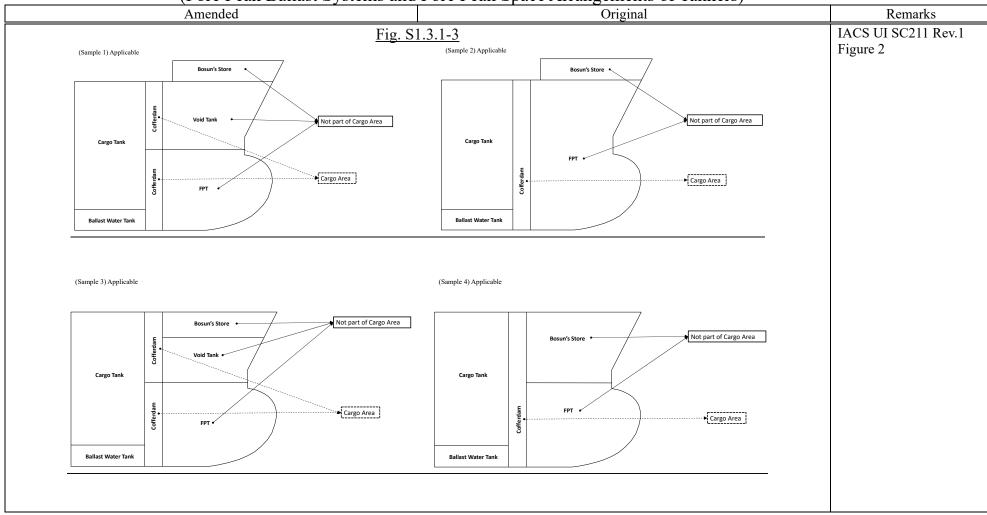
Ballast Water Tank

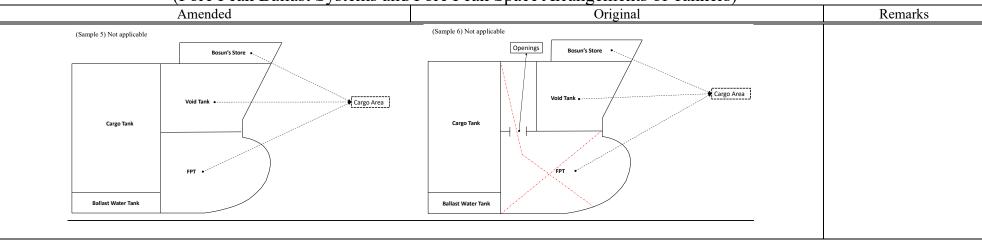
: Zone 1

: Zone 2

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND	GUIDANCE FOR THE SURVEY AND	
CONSTRUCTION OF STEEL SHIPS	CONSTRUCTION OF STEEL SHIPS	
CONSTRUCTION OF STEEL SHIPS	CONSTRUCTION OF STEEL SHIPS	
Part H ELECTRICAL	Part H ELECTRICAL	
INSTALLATIONS	INSTALLATIONS	
H4 ADDITIONAL REQUIREMENTS FOR	H4 ADDITIONAL REQUIREMENTS FOR	
SHIPS CARRYING SPECIAL CARGOES	SHIPS CARRYING SPECIAL CARGOES	
H4.2 Tankers, Ships Carrying Liquefied Gases in Bulk	H4.2 Tankers, Ships Carrying Liquefied Gases in Bulk	
and Ships Carrying Dangerous Chemicals in Bulk	and Ships Carrying Dangerous Chemicals in Bulk	
H4.2.3 Hazardous Areas	H4.2.3 Hazardous Areas	
1 The wording "those requirements otherwise specified	1 The wording "those requirements otherwise specified	
by the Society" in 4.2.3-4, Part H of the Rules means the	by the Society" in 4.2.3-4, Part H of the Rules means the	
categorization technique specified in 4.1.4 in <i>IEC</i> 60092-502	categorization technique specified in 4.1.4 in <i>IEC</i> 60092-502	
(1999). This technique categorizes those hazardous areas	(1999). This technique categorizes those hazardous areas	
adjacent to any spaces (standard hazardous areas) in which	adjacent to any spaces (standard hazardous areas) in which	
flammable or explosive gas atmospheres are present or likely	flammable or explosive gas atmospheres are present or likely	
to occur after taking into account the effectiveness of any	to occur after taking into account the effectiveness of any	
sources of release and ventilation (refer to Fig. H4.2.3-1). In	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	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,	R4.5.3-5 and R11.6.2, Part R of the Guidance.	
Part R of the Guidance.	NT.5.5-5 and N11.0.2, 1 at t N of the Guidance.	

Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS	GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS	
Part S SHIPS CARRYING DANGEROUS CHEMICALS IN BULK	Part S SHIPS CARRYING DANGEROUS CHEMICALS IN BULK	
S1 GENERAL	S1 GENERAL	
S1.3 Definitions	S1.3 Definitions	IACS UI SC211 Rev.1 Interpretation 2
 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). 	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)	





Amended	Original	Remarks
GUIDANCE FOR THE SURVEY AND	GUIDANCE FOR THE SURVEY AND	
CONSTRUCTION OF STEEL SHIPS	CONSTRUCTION OF STEEL SHIPS	
Part R FIRE PROTECTION,	Part R FIRE PROTECTION,	
DETECTION AND EXTINCTION	DETECTION AND EXTINCTION	
R3 DEFINITIONS	R3 DEFINITIONS	
K3 DEFINITIONS	K5 DEFINITIONS	
R3.2 Definitions	R3.2 Definitions	IACS UI SC211 Rev.1 Interpretation 2
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).	(Newly added)	
Fig. R	<u>13.2.6</u>	IACS UI SC211 Rev.1
(Sample 1) Applicable to both oil tankers and chemical tankers	(Sample 2) Applicable to both oil tankers and chemical tankers	Figure 2
Cargo Tank Void Tank Void Tank Cargo Tank FPT Cargo Area	Cargo Tank FPT Cargo Tank Cargo Tank FPT Cargo Area	
Ballast Water Tank	Ballast Water Tank	

(Fore Peak Ballast Systems and Fore Peak Space Arrangements of Tankers) Original Amended Remarks (Sample 4) Applicable to both oil tankers and chemical tankers (Sample 3) Applicable to both oil tankers and chemical tankers Not part of Cargo Area Not part of Cargo Area Void Tank Cargo Tank Cargo Tank Cargo Area ► Cargo Area Ballast Water Tank Ballast Water Tank (Sample 6) Applicable to oil tankers only (Sample 5) Applicable to oil tankers only Openings Bosun's Store Bosun's Store Cargo Area Void Tank • Cargo Area Void Tank Cargo Tank Cargo Tank FPT • Ballast Water Tank

	Amended	Original	Remarks
	EFFECTIVE DATE	AND APPLICATION	
1.	The effective date of the amendments is 1 January 20		
2.	Notwithstanding the amendments, the current requestruction* is before 1 January 2026.	uirements apply to ships for which the date of contract for	
3.	Notwithstanding the provision of preceding 2., the	amendments may apply to ships other than ships for which the	
	application for Classification Survey during Constru	ction is submitted to the Society on and after the effective date	
	upon request by the owner.	·	
	* "contract for construction" is defined in the lates	t version of IACS Procedural Requirement (PR) No.29.	
	IACS PR No.29 (Rev.0, July 2009)	
1.		tract to build the vessel is signed between the prospective owner and the shipbuilder. This date e contract are to be declared to the classification society by the party applying for the assignment	
2.			
	For the purpose of this Procedural Requirement, vessels built under a single con	ntract 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 de (1) such alterations do not affect matters related to classification, or	sign alterations from the original design provided:	
	(2) If the alterations are subject to classification requirements, these alteration	s 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 date on which the alterations are submitted to the Society for approval.	e absence of the alteration contract, comply with the classification requirements in effect on the	
	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.		additional options, the date of "contract for construction" for such vessels is the date on which he 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 "cornew contract is signed between the Owner, or Owners, and the shipbuilder.	ontract for construction" of this modified vessel, or vessels, is the date on which revised contract	
Note:			
This Pr	rocedural Requirement applies from 1 July 2009.		