

Amendments to the “Rules for the Classification of Floating Offshore Units at Fixed Locations and Mobile Offshore Drilling Units”

Effective from 1/1/2025

List of the amendments:

Part/Chapter/Section/Paragraph amended	Reason
Pt E, Ch 1, Sec 4, [9.7.1] Pt E, Ch 2, Sec 4, [9.7.1]	to introduce IACS UR F15 (Rev.7 - Sept 2023) “Reinforced thickness of ballast and cargo oil piping”

SECTION 1	GENERAL
SECTION 2	UNIT ARRANGEMENT
SECTION 3	HULL AND STABILITY
SECTION 4	MACHINERY AND SYSTEMS IN CARGO AREA
SECTION 5	ELECTRICAL INSTALLATIONS
SECTION 6	FIRE PROTECTION, DETECTION AND EXTINCTION
APPENDIX 1	DEVICES TO PREVENT THE PASSAGE OF FLAME INTO THE CARGO TANKS
APPENDIX 2	DESIGN OF CRUDE OIL WASHING SYSTEMS

SECTION 4

MACHINERY AND SYSTEMS IN CARGO AREA

1 General

area. The requirements for cargo handling systems are in Part C, Chapter 5.

1.1 Application

1.1.1 The requirements of this section apply to the venting system, purging and/or gas-freeing system, level gauging system, protection against overload system, washing system and heating system of cargo tanks as well as to bilge and ballast systems, to air, sounding pipes and scuppers in cargo

1.2 Documentation to be submitted

1.2.1 Tab 1 lists the plans, information, analysis, etc. which are to be submitted in addition to the information required in the other Parts of the Rules.

1.2.2 The information listed in Tab 2 is also to be submitted.

Table 1 : Documents to be submitted

No	(1)	Documents (2)
1	A	Diagram of the oil cargo tank venting system with: <ul style="list-style-type: none"> • indication of the outlet position • details of the pressure/vacuum valves and flame arrestors • details of the draining arrangements, if any
2	A	Diagram of the oil cargo tank level gauging system with overfill safety arrangements
3	A	Diagram of the oil cargo tank heating system
4	A	Oil cargo tank cleaning system
5	A	Gas freeing system of cargo tanks
6	A	Diagram of bilge system in cargo area
7	A	Diagram of ballast system in cargo area
8	A	Diagram of air, sounding and scuppers in cargo area
(1) A = to be submitted for approval in four copies		
(2) Diagrams are also to include, where applicable, the (local and remote) control and monitoring systems and automation systems		

Table 2 : Informations to be submitted

No	(1)	Documents
1	A	Material, external diameter and wall thickness of the pipes
2	A	Type of the connections between pipe lengths, including details of the weldings, where provided
3	A	Material, type and size of the accessories
4	A	For plastic pipes: <ul style="list-style-type: none"> • the chemical composition • the physical and mechanical characteristics in function of temperature • the characteristics of inflammability and fire resistance • the resistance to the products intended to be conveyed
(1) A = to be submitted for approval in four copies		

9 Ballast system in cargo area

9.1 General

9.1.1 The requirements of this Article apply to ballast systems in cargo area. In addition the applicable requirements for piping systems in Pt C, Ch 1, Sec 10 of the Rules for the Classification of Ships apply.

Unless otherwise specified ballast systems serving spaces located within the cargo area:

- are to be independent from any piping system serving spaces located outside the cargo area;
- are not to lead outside the cargo area;
- are to be completely separated from the cargo oil and fuel oil systems.

9.2 Pumping arrangement for ballast tanks within cargo area

9.2.1 Ballast tanks located within the cargo area are to be served by two different means. At least one of these means is to be a pump or an eductor used exclusively for dealing with ballast.

Ballast pumps are to be located in the cargo pump room, or a similar space within the cargo area not containing any source of ignition.

Where installed in the cargo pump room the relevant prime movers are to be located outside the cargo pump room, except in the following cases:

- steam driven machine supplied with steam having a temperature not exceeding 220 °C
- hydraulic motors
- electric motors of certified type.

Where ballast pumps are driven by a machine which is located in a non hazardous area outside the cargo pump room, the following arrangements are to be made:

- drive shafts are to be fitted with flexible couplings or other means suitable to compensate for any misalignment
- the shaft bulkhead or deck penetration is to be fitted with a gas-tight gland of a type approved by the Society.

The gland is to be efficiently lubricated from outside the oil handling pump room and so designed as to prevent overheating. The seal parts of the gland are to be of material that cannot initiate sparks.

- temperature sensing devices are to be fitted for bulkhead shaft gland bearings and pump casing.

9.3 Emergency discharge of ballast

9.3.1 Provisions may be made for emergency discharge of the ballast by means of a connection to a cargo pump through a detachable spool piece provided that:

- non-return valves are fitted on the ballast connections to prevent the passage of oil to the ballast tank, and
- shut-off valves are fitted to shut off the cargo and ballast lines before the spool piece is removed.

The detachable spool piece is to be placed in a conspicuous position in the pump room and a permanent warning notice restricting its use is to be displayed in a conspicuous position adjacent to it.

9.4 Ballast water in cargo tanks

9.4.1

- Provisions are to be made for filling cargo tanks with sea water, where permitted
- The sea water inlets and overboard discharges serving cargo tanks for the purpose of a) are not to have any connection with the ballast system of ballast tanks.
- Cargo pumps may be used for pumping ballast water to or from the cargo tanks, provided two shut-off valves are fitted to isolate the cargo piping system from the sea inlets and overboard discharges.
- Ballast pumps serving ballast tanks may be used for filling the cargo tanks with sea water provided that the connection is made on the top of the tanks and consists of a detachable spool piece and a screw-down non-return valve to avoid siphon effects.

9.5 Pumping arrangement for cofferdams located at the fore and aft ends of the cargo tanks

9.5.1 Where they are intended to be filled with water ballast, the cofferdams located at the fore and aft ends of the cargo tanks may be emptied by a ballast pump located inside the machinery compartment or a forward space, whichever is the case, provided that:

- the suction is directly connected to the pump and not to a piping system serving machinery spaces
- the delivery is directly connected to the unit side.

9.6 Ballast systems for fore peak

9.6.1 The fore peak tank can be ballasted with the system serving ballast tanks within the cargo area, provided:

- the fore peak tank is considered hazardous
- the vent pipe openings are located on open deck 3 m away from sources of ignition
- means are provided, on the open deck, to allow measurement of flammable gas concentrations within the fore peak tank by a suitable portable instrument
- the sounding arrangement to the fore peak tank is direct from open deck.

9.7 Ballast pipes passing through tanks

9.7.1 (1/1/2025)

- a) Ballast piping is not to pass through cargo tanks except in the case of short lengths of piping complying with the following:
- they are to have welded or heavy flanged joints ([see Note 1](#)) the number of which is kept to a minimum
 - they are to be of extra-reinforced wall thickness as per Pt C, Ch 1, Sec 10, Tab 5 of the Rules for the Classification of Ships
 - they are to be adequately supported and protected against mechanical damage.
- b) sliding type couplings are not to be used for expansion purposes where ballast lines pass through cargo tanks. Expansion bends ([see Note 2](#)) only are permitted.

Note 1: [Heavy flanged joints means welded flange joints rated at least PN10 or one pressure rating higher than required design pressure, whichever is greater.](#)

Note 2: [Expansion bends means expansion loops such as an omega bend \('Ω'\) in piping system to counteract excessive stresses or displacement caused by thermal expansion or hull deformation which could be fabricated from straight lengths of pipe.](#)

10 Air and sounding pipes of spaces other than cargo tanks in cargo area

10.1 General

10.1.1 The air and sounding pipes fitted to the following spaces:

- cofferdams located at the fore and aft ends of the cargo tanks
- tanks and cofferdams located within the cargo area and not intended for cargo are to be led to the open.

10.2 Air pipes

10.2.1 The air pipes referred to in [10.1.1] are to be arranged as per Pt C, Ch 1, Sec 10, [9] of the Rules for the Classification of Ships and are to be fitted with easily removable flame screens at their outlets.

10.3 Passage through cargo tanks

10.3.1 The air and sounding pipes referred to in [10.1.1] are not to pass through cargo tanks except in the following cases:

- short lengths of piping serving ballast tanks
- lines serving double bottom tanks located within the cargo area

provided that the following provisions are complied with:

- they are to have welded or heavy flanged joints the number of which is kept to a minimum
- they are to be of extra-reinforced wall thickness as per Pt C, Ch 1, Sec 10, Tab 5 of the Rules for the Classification of Ships
- they are to be adequately supported.

11 Scupper pipes in cargo area

11.1

11.1.1 Scupper pipes are not to pass through cargo tanks except, where this is impracticable, in the case of short lengths of piping complying with the following provisions:

- they are of steel
- they have welded or heavy flanged joints the number of which is kept to a minimum
- they are of substantial wall thickness as per Pt C, Ch 1, Sec 10, Tab 23, column 1 of the Rules for the Classification of Ships.

12 Certification, inspection and testing

12.1 Application

12.1.1 The provisions of this Article are related to the venting system, purging and/or gas-freeing system, level gauging systems, protection against overload system, washing systems and heating system of cargo tanks as well as to bilge and ballast systems, air pipes, sounding pipes and scuppers in cargo area.

They supplement those given in Pt C, Ch 1, Sec 10, [10] of the Rules for the Classification of Ships for piping system and in Pt C, Ch 5, Sec 2, [7] for oil handling piping systems.

12.2 Workshop tests

12.2.1 Tests for materials

Where required in Tab 3, materials used for pipes, valves and fittings are to be subjected to the tests specified in Pt C, Ch 1, Sec 10, [21.3.2] of the Rules for the Classification of Ships.

12.2.2 Inspection of welded joints

Where required in Tab 3 welded joints are to be subjected to the examinations specified in Pt C, Ch 1, Sec 10, [3.6] of the Rules for the Classification of Ships.

12.2.3 Hydrostatic testing

- a) Where required in Tab 3, pipes, valves and fittings are to be submitted to hydrostatic tests in accordance with the relevant provisions of Pt C, Ch 1, Sec 10, [21.4] of the Rules for the Classification of Ships.
- b) Expansion joints are to be submitted to hydrostatic tests in accordance with the relevant provisions of Pt C, Ch 1, Sec 10, [21.4] of the Rules for the Classification of Ships.

12.2.4 Tightness tests

Tightness of the following devices is to be checked:

- cargo tank P/V and high velocity valves.

Note 1: These tests may be carried out in the workshops or on board.

12.2.5 Check of the safety valves setting

The setting pressure of the pressure/vacuum valves is to be checked in particular with regard to [2.1.6].

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and ballast systems, to air, sounding pipes and scuppers in cargo area.

The requirements for cargo handling systems and production, process and supports systems are given in Part C, Chapter 5 and Part C, Chapter 6.

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 - they are to be adequately supported and protected against mechanical damage.
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They supplement those given in Pt C, Ch 5, Sec 2, [7] for oil handling piping systems and Pt C, Ch 6, Sec 2, [11] for production and process systems.

12.2 Workshop tests

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