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To: relevant departments of CCS Headquarters, Shanghai Rules & Research Institute, Plan Approval Centers, CCS branches/offices, related shipyards, products manufacturers, designers, ship management companies, and ship owners

Notice on Implementation of Resolution MSC.291(87) on Corrosion protection of cargo oil tanks of crude oil tankers

1. Background

1.1 The amendments to the International Convention for the Safety of Life At Sea, 1974 was adopted by the resolution MSC.291(87) at the 87th session of IMO Maritime Safety Committee on 21 May 2010, and effective from 1 January 2012. The amendment was proposed by EU at 2003 based on an investigation on the serious corrosion in both top and bottom area in cargo holds of crude oil tankers.

1.2 This Circular covers revisions to Chapter II-1 as set out in the Annex to the resolution MSC.291(87), which is effective from 1 January 2012.

1.3 The original English version of Annex to MSC.291(87) and related MSC.288(87), MSC.289(87) are given in the Annex to this Circular

2. Technical Note

2.1 Revisions of SOLAS Reg.II-1

New regulation SOLAS II-1/3-11 Corrosion protection of cargo oil tanks of crude oil tankers is added, which applies to crude oil tankers, as defined in regulation 1 of Annex I to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, of 5,000 tonnes deadweight and above:

- .1 for which the building contract is placed on or after 1 January 2013; or
- .2 in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2013; or
- .3 the delivery of which is on or after 1 January 2016.

2.2 All cargo oil tanks of crude oil tankers (Figure 1) shall be coated during the construction of the ship in accordance with the Performance standard for protective coatings for cargo oil tanks of crude oil tankers by resolution MSC.288(87), or protected in accordance with the Performance standard for alternative means of corrosion protection for cargo oil tanks of crude oil tankers by resolution MSC.289(87), unless the Administration exempt a crude oil tanker from the requirements of corrosion protection, according to paragraph 4 and paragraph 5 of Regulation SOLAS II-1/3-11.

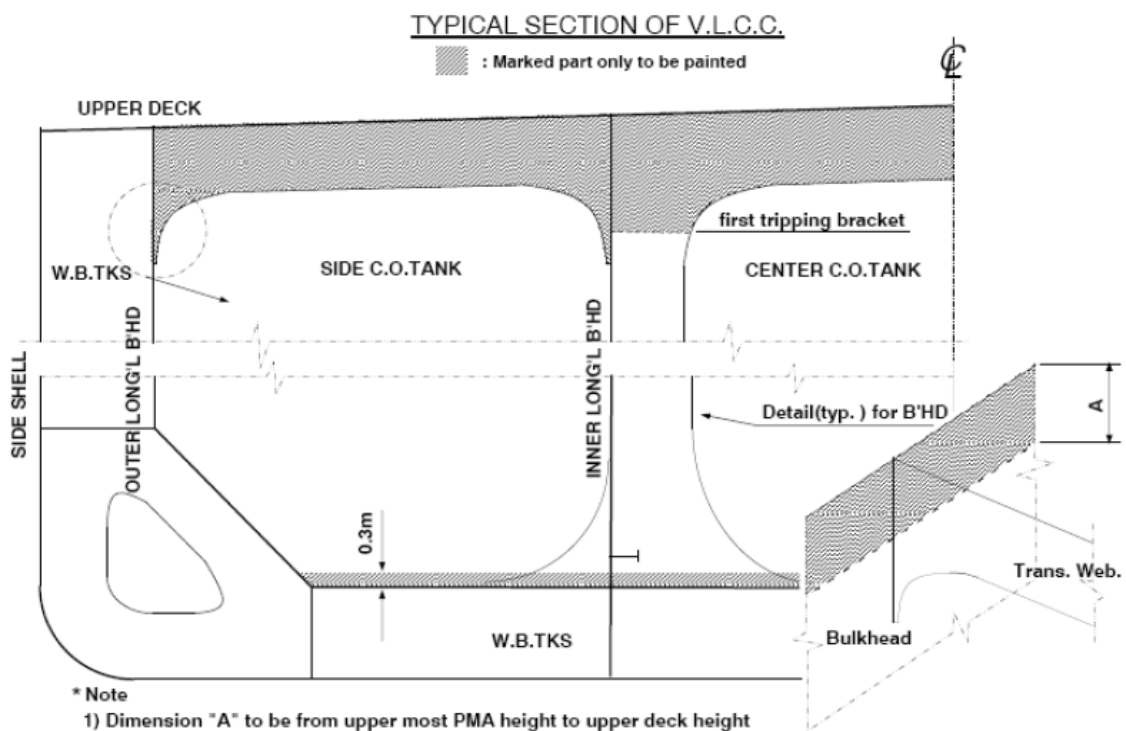


Figure 1

2.3 In view of water ballast tanks which can only be corrosion protected by protective coatings, cargo oil tanks of crude oil tankers can be corrosion protected by protective coatings or corrosion resistance steel. When protective coatings is chosen as corrosion protected means, most of requirements between PERFORMANCE STANDARD FOR

ALTERNATIVE MEANS OF CORROSION PROTECTION FOR CARGO OIL TANKS OF CRUDE OIL TANKERS and PERFORMANCE STANDARD FOR PROTECTIVE COATINGS FOR DEDICATED SEAWATER BALLAST TANKS IN ALL TYPES OF SHIPS AND DOUBLE-SIDE SKIN SPACES OF BULK CARRIERS are same, and the main differences are listed in table 1.

Table 1

	Cargo oil tanks of crude oil tankers	Water ballast tanks
Coatings	Passed coating pre-qualification test for cargo oil tanks of crude oil tankers	Passed coating pre-qualification test for water ballast tanks
Surface treatment after erection	For inner bottom - Damages up to 20% of the area to be coated to be treated to minimum St 3. - Contiguous damages over 25m ² or over 20% of the area to be coated, Sa 2½ shall be applied. For underdeck - Damages up to 3% of area to be coated to be treated to minimum St 3. - Contiguous damages over 25 m ² or over 3% of the area to be coated, Sa 2½ shall be applied.	Butts St 3 or better or Sa 2½ where practicable. Small damages up to 2% of total area: St 3. Contiguous damages over 25m ² or over 2% of the total area of the tank, Sa 2½ shall be applied.

2.4 Regulation SOLAS II-1/3-11 is not retroactive to existing ships.

3 Requirements during construction survey

3.1 During products survey, attentions should be paid, for corrosion protection of cargo oil tanks of crude oil tankers by coating according to MSC288(87), epoxy-based systems tested prior to 1 January 2012 in a laboratory by a method corresponding to the test procedure in annex 1 of MSC288(87) or equivalent, which as a minimum meets the requirements for rusting and blistering, or which have documented field exposure for 5 years with a final coating condition of not less than "GOOD", may be accepted. For epoxy-based systems approved on or after 1 January 2012, testing according to the procedure in annex 1 of MSC288(87), or equivalent, is required. For corrosion protection of cargo oil tanks of crude oil tankers by alternative means according to MSC289(87), corrosion resistance steel should be verified by TEST PROCEDURES FOR QUALIFICATION OF CORROSION RESISTANT STEEL FOR CARGO TANKS IN CRUDE OIL TANKERS, set out as resolution MSC.289(87) annex 1.

3.2 During construction survey, for corrosion protection of cargo oil tanks of crude oil tankers by coating according to MSC288(87), the inspection agreement between shipowner, the shipyard and the coating manufacturer, as well as Coating Technical File(CTF), should be reviewed. For corrosion protection of cargo oil tanks of crude oil tankers by alternative means according to MSC289(87), technical file specified by article 2.2 of annex to resolution MSC.289(87) should be reviewed.

4. Notes

This Circular is available on www.ccs.org.cn and should be forwarded by each branch and plan approval center to relevant shipyards, product manufacturers, ship owners and designers within its business area.

Please feel free to contact Technical Management Department of CCS for any inquiry (rt@ccs.org.cn). CCS' guidance "Corrosion Inspection Guide for Ship Structures (2009)" can be also referred to.

5. Attachments

Attachment 1: Resolution MSC291(87)

Attachment 2: Resolution MSC288(87)

Attachment 3: Resolution MSC289(87)