C C S *Circular*

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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 IACS UR S11 newly revised(Rev.7, effective on 1 July 2011)

1. Background

Among the recommendations from the UK MAIB investigations into the MSC Napoli incident, it asks IACS for a review of UR S11 to ensure that hull girder and buckling strength checks are carried out at all critical sections along the entire length of a vessel.

Evaluation of hull girder longitudinal strength during a sequential ballast water exchange process and the inclusion of this information in the loading manual or ballast water management plan are considered important and necessary.

The latest UR 11 Rev.7 is to clarify strength requirements during sequential ballast water exchange and to include recommendations made in the UK MAIB report on the MSC Napoli incident. It shall apply to ships contracted for construction on or after 1 July 2011.

2. Revision of UR S11(Rev.7)

The existing paragraph S11.2.1.5 is replaced by the following:

"**S11.2.1.5 Sequential ballast water exchange**

Requirements of S11.2.1.3 and S11.2.1.4 are not applicable to ballast water exchange using the sequential method. However, bending moment and shear force calculations for each deballasting or ballasting stage in the ballast water exchange sequence are to be included in the loading manual or ballast water management plan of any vessel that intends to employ the sequential ballast water exchange method."

The existing paragraph S11.3.2 is replaced by the following:

"S11.3.2 **Bending strength outside amidships**

The required bending strength outside 0.4*L* amidships is to be determined at the discretion of each

Classification Society.

As a minimum, hull girder bending strength checks are to be carried out at the following locations:

- In way of the forward end of the engine room.
- In way of the forward end of the foremost cargo hold.
- At any locations where there are significant changes in hull cross-section.
- At any locations where there are changes in the framing system.

Buckling strength of members contributing to the longitudinal strength and subjected to compressive and shear stresses is to be checked, in particular in regions where changes in the framing system or significant changes in the hull cross-section occur. The buckling evaluation criteria used for this check is determined by each Classification Society.

Continuity of structure is be maintained throughout the length of the ship. Where significant changes in structural arrangement occur adequate transitional structure is to be provided.
For ships with large deck openings such as containerships, sections at or near to the aft and forward quarter length positions are to be checked. For such ships with cargo holds aft of the superstructure, deckhouse or engine room, strength checks of sections in way of the aft end of the aft-most holds, and the aft end of the deckhouse or engine room are to be performed."

3. 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.

The latest revision of IACS UR S11 can be downloaded from IACS (http://www.iacs.org.uk) or CCS (http://www.ccs.org.cn/gb/IACSInfo.htm) websites.

Please feel free to contact Technical Management Department of CCS for any inquiry. E-mail：rt@ccs.org.cn