Report of CCC 5

Sub-Committee on Carriage of Cargoes and Containers
10th – 14th September 2018
International Maritime Organization (IMO), London headquarters

As a Sub-committee, CCC makes proposals which are subject to approval of the parent Committees. The parent Committees could be MSC[1], MEPC[2], LEG[3], FAL[4] and TC[5] depending on agendas.

In terms of subgroups under each Committee or Sub-committee, a WG[6] undertakes particular agendas pertaining to instructions by the plenary of a Committee or Sub-committee. CG[7] takes over and continues carrying on the work on the agendas.

The Sub-committee CCC discussed about the following agendas in its plenary:

- amendments to the IGF Code[8] and development of guidelines for low-flashpoint fuels;
- suitability of high manganese austenitic steel for cryogenic service and development of any necessary amendments to the IGC Code[9] and the IGF Code;
- amendments to the IMSBC Code[10] and IMDG Code[11] and supplements;
- amendments to the CSS Code[12] with regard to weather-dependent lashing; and
- consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas

[1] MSC: This refers to the IMO Maritime Safety Committee.
[2] MEPC: Marine Environment Protection Committee
[3] LEG: Legal Committee
[4] FAL: Facilitation Committee
[5] TC: Technical Cooperation Committee
[6] WG: Working Group
[7] CG: Correspondence Group
[8] IGF Code: International Code of Safety for Ships Using Gases or Low-Flashpoint Fuels
[9] IGC Code: International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk
[10] IMSBC Code: International Maritime Solid Bulk Cargoes Code
[11] IMDG Code: International Maritime Dangerous Goods Code
[12] CSS Code: Code of Safe Practice for Cargo Stowage and Securing

Three WG were established at this session. Outcomes by each Group, approved by the plenary, are elaborated.

Working Group 1 ON AMENDMENTS TO THE IGF CODE AND DEVELOPMENT OF GUIDELINES FOR LOW-FLASHPOINT FUELS

The sub-committee proceeded this agenda by diving the approaches described in the report of CG on IGF Code related topics. The Group was instructed to develop 1) amendments on fuel cells (types, areas and structures, and ventilation and fire protections for such areas) and 2) the interim guidelines focusing on the technical provisions on methyl/ethyl alcohol as fuels.

Outcomes of the Group

1. Having comprehended the different nature between methyl and ethyl alcohol, the Group agreed the compelling importance of new safety provisions were necessary. Most of the terminologies used in the draft text were already defined in mandatory instruments including SOLAS[13] Chapter II-2[14] and the IGF Code. In short, the draft interim guidelines on the use of methyl/ethyl alcohol as fuels was developed in pursuant to the existing instruments which already consider the safety risk assessment.

2. The Group concluded that the interim guidelines should provide the gas safe concept mainly and the ESD[15] concept as supplementary for smaller vessels. This decision should be construed as higher safety provisions on board.

Correspondence group in 2019

1. The use of low-flashpoint fuels will be discussed further, *inter alia* the interim guidelines on fuel cells will be developed as a priority.

2. It is important for the ITF to participate in the CG. In addition, other Sub-committees – SDC[16], SSE[17] and PPR[18] – are highly connected their work on this matter. Participation for those Sub-committees is equally essential.

Working Group 2 ON HIGH MANGANESE AUSTENITIC STEEL FOR CRYOGENIC SERVICE AND DEVELOPMENT OF ANY NECESSARY AMENDEMENTS TO THE IGC CODE AND IGF CODE

With new fuel Sulphur cap (0.5%), various types of gas fuels and cargoes will need thoroughly examined storage facilities. On that note, the Sub-committee instructed the Group to finalise the interim guidelines on High Manganese Austenitic steel for cryogenic service premised on CG's report, documents CCC 5/INF.11 and CCC 5/4/1.

[13] SOLAS: The International Convention for the Safety of Life at Sea
[14] SOLAS Chapter II-2: Construction, fire protection, fire detection and fire extinction
[15] ESD: Emergency Shut Down
[16] SDC: Sub-Committee on Ship Design and Construction
[17] SSE: Sub-Committee on Ship Systems and Equipment
[18] PPR: Sub-Committee on Pollution Prevention and Response

Outcomes of the Group

1. The draft interim guidelines will include LNG cargo tanks in addition to LNG fuel tanks.

2. The Group agreed upon expansion of the existing output from High Manganese Austenitic steel only to approving alternative metallic materials for cryogenic service.

3. Finalised draft interim Guidelines will be submitted for the approval of MSC 100, December 2018. That means, the Organisation considers the safety issues in relation to storage facilities of gas cargoes and fuels as a priority for ships and seafarers' safety.

Correspondence group in 2019

1. Expending the existing output with a new title was proposed. The new title is *"Amendments to the IGC Code and IGF Code to include high manganese austenitic steel and related guidance for approving alternative metallic material for cryogenic service."*

Working Group 3 ON AMENDMENTS TO THE CSS CODE WITH REGARD TO WEATHER-DEPENDENT LASHING

This was first for the sub-committee dealing with this issue. The Group was instructed to discuss on: 1) weather-dependent reduction factors for acceleration and 2) other issues on the sustainable development of CSS Code.

Outcomes of the Group

1. The Group discussed amendments of Annex 13 of the CSS Code considering two propositions by Sweden and Germany. The intentions of both propositions are to increase the security and safety of weather-dependent cargo lashing. First, in terms of reduction factors for acceleration, 1) the accuracy of the weather forecast, 2) significant wave heights, and 3) duration of the voyage were included in the draft. Second, more materials like rubber tyres were introduced in the list of friction coefficients. Last, the application of reducing the safety factor for cars solely did not reach the agreement.

2. In paragraph 7.1 to the CSS Code, the inclusion of the following provision was decided:

> *"the required securing arrangement is calculated for the maximum expected twenty-year significant wave height in a particular restricted area and the cargo* ***is always secured*** *according to the designed arrangement when operating in that area."*

3. Various further amendments were discussed based on CCC 5/7 with CCC 5/INF.4 and CCC5/7/1 with CCC 5/INF.10. Encompassing: basic acceleration data and correction factors, additional provisions for longitudinal lashing, tipping and sliding, speed reduction in head seas, inclusion of acceleration calculation formulas – longitudinal, transverse and vertical, welded stoppers, correction factors that concerns about transverse acceleration, provision of computer software, survivability criteria and effect in longitudinal sliding and shifting in brakes, chocks and block waves.

4. The IMO initiated the endeavours for more stringent securing cargo lashing to improve transport workers' safety. Overall securing cargo by lashing is deemed to be enhanced. There are not going to be significant changes in practice yet, but the securing operation will need to be ensured.

Correspondence group in 2019

1. The draft amendments to the Annex 13 to the CSS Code and most considerations mentioned in 3 were brought forward to the CG in the future to enhance safety measures for ships.

2. ITF should participate in the CG to ensure the decision making on the robust safety regulations.

Action points

The new safety measures pertaining to the outcomes on the use of low-flashpoint fuels and weather dependent lashing, workers in the industry should be made aware that the safety culture must be effectively implemented for their health and safety.

The Sub-Committee decided to establish Correspondence Groups on; 1) amendments to the IGF code and development of guidelines for low-flashpoint fuels and 2) amendments to the CSS code with regard to weather-dependent lashing. The first Group, Branko Berlan and Odd Rune Malterud will participate. For the other Group, Branko Berlan and Jihyeon Gina Kim will participate.

*Aforementioned IMO documents can be provided if requested.