

## IUMI Policy Agenda

### 10. Safety of container vessels

#### *Brief description*

The increasing size of container vessels and recent incidents contribute to the high awareness and importance placed by insurers on several issues related to the safety of these ships. Fires count among the worst hazards of the global shipping industry, and every ineffective attempt to extinguish a fire puts the crew at risk. Damage to the environment, cargo and the vessel also increases. Misdeclaration of cargo and insufficient firefighting capabilities are currently two of the main challenges related to this peril.

#### Container contents

The contents of a container must be known if it is to be transported safely, and misdeclaration is a recurring safety problem. This applies equally to road, rail, and brown and blue water transport.

Containers often contain a wide range of hazardous and toxic substances. It is reported that approximately 20% of containers in transportation are misdeclared. An analysis from the Cargo Incident Notification System (CINS) shows that in just over a quarter of the incidents where causation was detected were attributable to cargo being misdeclared. This may lead to insufficient handling of the container, and worst case an incorrect firefighting strategy that may increase the danger of combustion of the goods in the container.

In July 2019, IUMI co-sponsored a submission to the IMO Sub-Committee on Carriage of Cargoes and Containers (CCC) containing a proposal to undertake a comprehensive review of maritime special provisions that are often used to exempt goods from the safety provisions of the International Maritime Dangerous Goods (IMDG) Code. This was agreed by CCC in September 2019, and a Correspondence Group subsequently submitted a report in June 2020 with a proposal amongst others to establish a Working Group on charcoal at CCC 7.

#### Firefighting system on container vessels

It is noted that insufficient firefighting capacity on board large container vessels poses a challenge that is only increasing with the size of these vessels.

Based on a 2008 impact assessment, the MSC approved in June 2013 new requirements for fire protection of on-deck cargo areas. The amended SOLAS regulation II-2/10 requirements only apply to new vessels constructed on or after 1 January 2016. In addition to all other fire protection arrangements as per existing regulations, vessels designed to carry five or more tiers of containers on or above the weather deck shall

from then on also be provided with mobile water monitors and at least one water mist lance.

Although these changes were a step in the right direction and expressly welcomed by IUMI, a concern remains with the firefighting equipment on existing vessels. With the growing size of container vessels, the challenge of insufficient firefighting arrangements is becoming even greater.

Consequently, IUMI recommended in a position paper from September 2017 that responsible authorities, class and relevant industry stakeholders engage in discussions on how to further improve the fire detection, protection and firefighting capabilities on board container vessels. Together with Germany, Bahamas, BIMCO and CESA, IUMI co-sponsored a submission to the IMO Maritime Safety Committee's 102<sup>nd</sup> session with a view to amend SOLAS. Due to COVID-19 and the interruption of IMO meetings, consideration of new outputs has been postponed until MSC 103 in May 2021. A group of experts has been formed to support the work if the new output is approved by MSC.

#### *Relevant authority / organisations and documents*

- **IMO - Maritime Safety Committee (MSC) and Sub-Committees on Dangerous Goods, Solid Cargoes and Containers (DSC), Sub-Committee on Fire Protection (FP) & on Carriage of Cargoes and Containers (CCC)**
  - FP 56/23 Annex 4 & 5: Report to the MSC, including recommendations on Suppression of fire and Guidelines for mobile water monitors, 31 January 2013.
  - MSC 92/8/2: Draft IMO Guidelines for the design, performance, testing and approval of mobile water monitors used for the protection of on-deck cargo areas designed to carry 5 or more tiers of containers on or above the weather deck, submitted by Denmark and Norway, 23 April 2013.
  - CCC1/INF.2: Investigation on the fire and explosion on board the MSC Flaminia, submitted by Germany, 3 June 2014.
  - MSC.1/Circ. 1497: IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU Code), 16 December 2014.
  - MSC.1/Circ. 1498: Informative material related to the CTU Code, 16 December 2014.
  - MSC97/8/2: Fire pumps in ships designed to carry five or more tiers of containers on or above the weather deck, submitted by IACS, 12 September 2016.
  - CCC6/10/1: Revision of the inspection programmes for cargo transport units carrying dangerous goods, submitted by New Zealand and ICHCA, 5 July 2019.
  - CCC6/6/17: **Non-declaration and misdeclaration of dangerous goods – special provisions in the IMDG Code, submitted by Liberia, ICS, IUMI, BIMCO, ICHCA, IGP&I, IVODGA and WSC, 5 July 2019.**
  - CCC6/J/8: Draft terms of references for a correspondence group under Agenda item 6 on a review of maritime special provisions, 9-13 September 2019.

- MSC102/21/3: Proposal for a new output to evaluate the adequacy of fire protection, detection and extinction arrangements on board containerhips to fight container fires, submitted by Marshall Islands, Singapore, AICS and WSC, 7 February 2020.
- MSC102/INF.2: Information on insurance related economic aspects associated with containerhip fires, submitted by IUMI, 7 February 2020.
- MSC102/INF.3: Analysis of current safety regulations concerning fire-fighting on board containerhips, submitted by IUMI, 7 February 2020.
- MSC102/21/7: Proposal for a new output for the fire protection on containerhips regarding the review of relevant parts of SOLAS chapter II-2 with regard to fire protection in the cargo area on and under deck, submitted by the Bahamas, Germany, IUMI, BIMCO and CESA, 11 February 2020.
- MSC102/21/13: Proposal for a new output on containers lost at sea, submitted by Vanuatu, 14 February 2020.
- FAL44/2020 & CCC7/6/1: The role of the Rotterdam Rules in safety and facilitation, submitted by CMI, 14 February 2020.
- MSC102/21/19: Comments and proposal for a new output on containers lost at sea, submitted by EU Member States & EC, 20 March 2020.
- MSC102/21/24: Comments on documents MSC 102/21/3 and MSC 102/21/7, submitted by Liberia, ICS, ICHA, IG, IVODGA, ITF and WSC, 24 March 2020.
- CCC7/6/2: Report of the Correspondence Group on a review of Maritime Special Provisions, 5 June 2020.
- CCC7/6/12: Documentation requirements for exempted dangerous goods, submitted by Liberia, BIMCO, ICHCA, ICS, IG, IVODGA and WSC, 24 July 2020.
- **IUMI:**
  - Loss Prevention workshop London, 18 September 2013, Presentation of possible firefighting solution by Uwe-Peter Schieder, GDV.
  - Press release 20 September 2016; call for further industry cooperation to tackle containerhip fires.
  - **Memo & press release 19 September 2017: Fire-fighting on container vessels** (<https://iumi.com/opinions/position-papers>).
- **Committee on large Container Ship Safety** (Japan): Interim Report “*MOL Comfort*”, 17 December 2013 – Final Report March 2015.
- **ClassNK** Investigation Report on Structural Safety of Large Container Ships, 30 September 2014.
- **IACS**, Sub-working group on structural safety of large container ships: Unified Requirements that set out minimum scope for hull girder strength analysis; UR S11A and UR S34, adopted 1 June 2015.
- **U.S. Coast Guard**: Marine Safety Information Bulletin 009/16: U.S. Declares an Equivalency to Regulation VI/2 of SOLAS, 28 April 2016.
- **Cargo Incident Notification System (CINS)**:
  - [www.cinsnet.com](http://www.cinsnet.com)

- Guidance - Safety considerations for ship operators to risk-based stowage of dangerous goods on containerships, 25 November 2019.
- Guidelines for the carriage of seed cake in containers, January 2020.
- **ABS:**
  - Fighting Fire on Container Ships, 2016.
  - Guide for fire-fighting systems for cargo areas of container carriers, October 2019.
- **Cefor:** Technical Forum memo 5 – Ultra Large Container Vessels, 13 March 2017.
- **German Federal Bureau of Maritime Casualty Investigation:** Investigation Report 15/19 – Fire in the area of the deck cargo on board the container ship Yantian Express in the Atlantic Ocean on 3 January 2019, 30 January 2020.
- **Tokyo MoU:** Safety Bulletin 03/20 – Safety risks of casualties caused by cargoes, May 2020.
- **CINS / IGP&I:** Guidelines for the carriage of seed cake (including seed meal) in containers, June 2020.
- **National Cargo Bureau:** White paper – A comprehensive holistic approach to enhance safety and address the carriage of undeclared, misdeclared and other non-compliant dangerous goods, 6 July 2020.
- **Cargo Integrity Group:** Quick guide to the UN-sponsored Code of Practice for Packing of Cargo Transport Units (the CTU Code), September 2020.
- **European Maritime Safety Agency:** Analysis of marine casualties and incidents involving container vessels, September 2020.
- **Transport Safety Investigation Bureau – Singapore:** Final report – Fire on board Maersk Honam at Arabian Sea on 6 March 2018, 5 October 2020.
- **CONTAIN:** Pilot project report – Exploring the challenges of containership fires, Danish Institute of Fire and Security Technology, 25 January 2021.

#### *Timeline / important dates & decisions*

- **CTU Code:**
  - Endorsed by
    - the Inland Transport Committee of the UNECE, at its seventy-sixth session, 25 to 27 February 2014,
    - the IMO Maritime Safety Committee, at its ninety-third session, 14 to 23 May 2014, and
    - the Governing Body of ILO, at its 322nd session, 30 October to 13 November 2014.
- Loss Prevention workshop, IUMI conference, Hong Kong, 24 September 2014.
- Final report Committee on large Container Ship Safety (Japan): March 2015.
- Entry into force of amended FSS Code & SOLAS regulation II-2/10: 1 January 2016.
- IUMI webinar: Mark Russell (Gard) on firefighting of container vessels and misdeclaration of container content, 2 November 2017.



- MSC 101 – IUMI lunch presentation, 5 June 2019.
- Gard conference, Arendal, 17-18 October 2019.
- Tripartite meeting, Tokyo, October 2019.
- SSE 7: 2-6 March 2020. IUMI lunchtime presentation by Are Solum (Gard), 4 March 2020.
- MSC 103: 3-14 May 2021.

*IUMI will:*

- Support a holistic approach to preventing and mitigating fires starting in the cargo on board container vessels.
- Support measures that improve the monitoring of containers and their contents.
- Support internationally harmonized legislation and national regulations based on the CTU Code.
- Monitor and support measures to ensure the structural safety of large container ships.
- Support a new output at the IMO in view of amending SOLAS.
- Coordinate views and seek input from the IUMI Group of Experts.
- Support the NCB recommendations from July 2020 to address the carriage of undeclared, misdeclared and other non-compliant dangerous goods.