



TECHNICAL CIRCULAR No. 384 of 04th January 2017

To: All Surveyors/Auditors

Applicable to flag: All Flags

Amendments to MSC Mandatory Instruments

Reference: **Liquefied Hydrogen, Industrial Personnel, Fire Safety, Escape Route, Watertight Doors**

Adopted Amendments to Mandatory Instruments

Miscellaneous

- Carriage of liquefied hydrogen - The Committee adopted, by resolution MSC. 420(97), Interim recommendations for carriage of liquefied hydrogen in bulk. These interim recommendations are intended to provide the basis for the future minimum requirements for the carriage of this cargo under applicable provisions of the IGC Code. Based on a comparison study of the physical properties of liquefied hydrogen, a class 2.1 dangerous good, and LNG, resolution MSC.420(97) identifies special requirements in the IGC Code for liquefied which include carriage restrictions in "type 2G" tanks, materials to prevent failures due to hydrogen embrittlement, filling limit of cargo tanks, vapor detection, temperature and boiling points of the inert gases during tank purging operations, firefighting systems, firefighters' outfits and protective equipment.
- Ships Carrying Industrial Personnel - The Committee adopted resolution MSC. 418(97) which contains Interim Recommendations on the safe carriage of more than 12 industrial personnel on board vessels engaged on international voyages. The Interim Recommendations define industrial personnel (such as those on board ships engaged in the construction and maintenance of offshore wind farms) as persons who are transported or accommodated on board for the purpose of offshore industrial activities performed on board vessels and/or other offshore facilities.

Industrial personnel should:

- not be considered or treated as passengers under SOLAS;
- be not less than 16 years of age;
- be familiarized with transfer procedures on/off the ship while at sea, as appropriate;
- be provided with the ship's life-saving equipment;
- be equipped with personal protective clothing and equipment suitable for the safety risks
- to be encountered both while on board the ship and being transferred at sea; and

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-meet appropriate STCW medical standards applicable to engineers.

The Committee agrees that these Interim Recommendations should be used as the basis to develop a new Chapter of SOLAS containing new mandatory requirements for the carriage of industrial personnel.

- Goal-Based Standards – The Committee progressed draft revisions of the guidelines for verification of conformity of classification society rules with IMO’s goal-based ship construction standards for bulk carriers and oil tankers. The draft revisions were based on experience gained during the initial implementation and verification audits by IMO which led to MSC 96 concluding that the Rules submitted by each of the 12 IACS Member Societies conform to the goals and functional requirements of the Goal-based Ship Construction Standards.

The revised guidelines are planned to be completed for adoption at MSC 100, in November 2018, and would apply to verifications carried out on or after November 2019 of documentation submitted for initial verification and for rule/documentation submitted as a result of rule revisions. The revised process of rule verification maintenance is tailored for three categories of rule revisions that are developed due to:

1. application of corrective actions emanating from previous verification audits;
2. continuous improvement process, including revisions addressing observations stemming from previous verification audits; and
3. experience gained and the due consideration by the Administration or the recognized organization of rules which have been verified as conforming to the Standards.

- Alternative Fire Safety Arrangements – The Committee approved MSC.1/Circ.1555 which provides amendments to the Guidelines on alternative design and arrangements for fire safety. A new appendix provides a methodology for the selection of performance criteria used to address the survivability of persons on board when exposed to the effects of heat, smoke, toxicity and reduced visibility.

- Shipboard Escape Route Signs/Markings - the Committee approved MSC.1/Circ.1553 which recommends that shipboard escape route signs and emergency equipment location markings use the symbols from ISO 24409-2:2014. IMO will prepare, in 2017, a MSC resolution that will contain the specific graphical symbols from ISO 24409-2:2014.

- Butterfly Valves – The Committee noted that approved revisions of SOLAS II-1/12 will, upon adoption and entry into force, correct an oversight currently contained in SOLAS II-1/11. That correction will allow for the use of a butterfly valve, suitably supported by a seat or flanges and capable of being operated from above the freeboard deck, in lieu of a screw-down valve in piping on cargo ships which pierces the collision bulkhead for dealing with fluid in the forepeak tank. However, because a decision was not reached on the proposed increase of the survivability index, R, for new passenger ships, adoption of the revision of SOLAS II-1 was held in abeyance until this matter is resolved at MSC 98 where it is expected that the complete set of amendments of SOLAS II-1 will be adopted.

- Watertight Doors on Passenger Ships – The Committee postponed until MSC 98 the approval of a MSC Circular which provides guidance to ensure that the three categories of watertight

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doors that are permitted to be opened during navigation do not inadvertently provide a flaw in the required damage stability survivability of new passenger ships. Upon approval, the MSC circular will apply to new passenger ships constructed on or after the January 1, 2020 expected entry into force date of the revised SOLAS II-1/22. Factors restricting the operation of these watertight doors are included together with operational instructions, markings and postings of such doors. Criteria for carrying out a floatability assessment of Category B doors; i.e., doors that may be opened during navigation when work in the immediate vicinity of the door requires it to remain open, is included.

REFERENCES:

- **Regulation ref. to: Liquefied Hydrogen, Industrial Personnel, Fire Safety, Escape Route, Watertight Doors.**

ATTACHMENTS: No.

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