

LR Class News 2019 roundup.

Archive of Class News, showing classification and statutory alerts and bulletins.



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Amendments (05-19) to the International Maritime Solid Bulk Cargoes Code.

Class News 21/2019

18 December 2019

Applicability: shipowners, ship operators, ship managers, ship masters, bulk carriers.

Amendments (05-19)* to the International Maritime Solid Bulk Cargoes (IMSBC) Code will enter into force on 1 January 2021 and can be implemented voluntarily from 1 January 2020.

New cargoes

The amendments introduce new individual cargo schedules with specific carriage requirements for the following Group B cargoes (cargoes that possess a chemical hazard which could give rise to a dangerous situation on a ship):

- Flue Dust, containing Lead and Zinc
- Matte containing Copper and Lead
- Metal Sulphide concentrates, self-heating UN 3190
- Seed Cakes and Other Residues of Processed Oily Vegetables
- Zinc Oxide-Enriched Flue Dust

What should owners and operators do now?

Certification that includes the new cargoes can be requested from Lloyd's Register after the voluntary application date.

Other changes to the IMSBC Code

These include:

- The 'Characteristics' table, which has been replaced for each individual cargo schedule to clarify the Hazard Classification (subsidiary hazard(s) and MHB)
- The existing individual schedule for "Seed Cake (non-hazardous)" is deleted
- Addition of a Group A cargo schedule for Bauxite Fines and a corresponding test procedure for determining transportable moisture limit (TML) of Bauxite cargoes

*For more details on the amendments and a full list of the new cargoes added to the IMSBC Code, please see IMO Resolution MSC.462(101) – Amendments 05-19 – Consolidated version of the IMSBC Code.





Carriage of vehicles in non-ro-ro cargo holds.

Class News 20/2019

12 December 2019

Applicability: shipowners, ship operators, ship managers, ship masters, designers, shipbuilders, bulk carriers and container ships.

An IMO amendment to SOLAS regulation II-2/20 ('Protection of vehicle, special category and ro-ro spaces'**) comes into force on 1 January 2020. The amendment clarifies the regulation's application to non-ro-ro cargo holds used for carriage of 'vehicles with fuel in their tanks for their own propulsion'.

The new paragraph in SOLAS regulation II-2/20, which applies to both new and existing ships, states:

"2.1.2 On all ships, vehicles with fuel in their tanks for their own propulsion may be carried in cargo spaces other than vehicle, special category or ro-ro spaces, provided that all the following conditions are met:

1. The vehicles do not use their own propulsion within the cargo spaces
2. The cargo spaces are in compliance with the appropriate requirements of regulation II-2/19
3. The vehicles are carried in accordance with the IMDG Code, as defined in regulation VII/1.1."

The new paragraph effectively waives the requirements of SOLAS, Ch II-2, Regulation 20 for vehicles when transported

in a non-ro-ro cargo space, despite such spaces coming under the SOLAS definition of a 'vehicle space'. Consequently, a vehicle can be loaded into the cargo space, and the cargo space may need only comply with SOLAS Regulation II-2/19 instead of Regulation II-2/20; depending on the requirements of the IMDG code**.

*The amendments are contained in IMO Resolution MSC.421(98).

**Reference should be made to the IMDG Code requirements for carriage of vehicles, i.e. cargo schedules UN No. 3166 and 3171, and Special Provisions 961 and 962.

Mitigating lithium battery system fires.

Class News 19/2019

3 December 2019

Applicability: shipowners, ship operators, ship managers and ship masters.

The Norwegian Maritime Authority (NMA) has alerted shipowners and operators to hazards associated with lithium battery systems. This follows a fire and subsequent explosion in the battery room of the car and passenger ferry Ytterøyningen (IMO 9371531), which took place in Norway on 10 and 11 October. An investigation has yet to determine the causes.

The NMA circular SM3-2019, issued on 14 October and clarified on 18 October 2019, recommends that shipowners using battery systems review their risk assessments and emergency procedures. Corvus Energy, which supplied the ferry's battery system, has issued its own recommendations.

To support owners or operators reviewing their risk assessment, the following considerations are related to the mitigation of risk in case of fire adjacent to, or within, a lithium battery system space:

- Maintain fire insulation for the space in good condition
- Do not store combustible material or flammable compounds in the space
- Conduct regular testing to confirm that the battery management system (BMS) is fully functional and that it remains connected to the ship's alarm system, so that temperatures can be monitored during an emergency response

- Investigate alarms and take prompt action before clearing the alarm status, particularly where high cell or ambient temperatures develop
- Ensure that ventilation for the extraction of gasses remains in a defined safe state during an emergency
- Ensure that fixed fire-fighting system release instructions are clear, correct and readily available
- Conduct crew training on the recommended instructions, with fire drills focused on actions necessary and on the timescales

For context, unlike conventional electrical systems, inherent risks remain even when charged lithium battery systems are disconnected from the electrical power network. The designed safe state for the battery, its electrical connections, auxiliary and ancillary systems in all operating modes needs to be defined, available and include the situations under which the safe state should be activated.

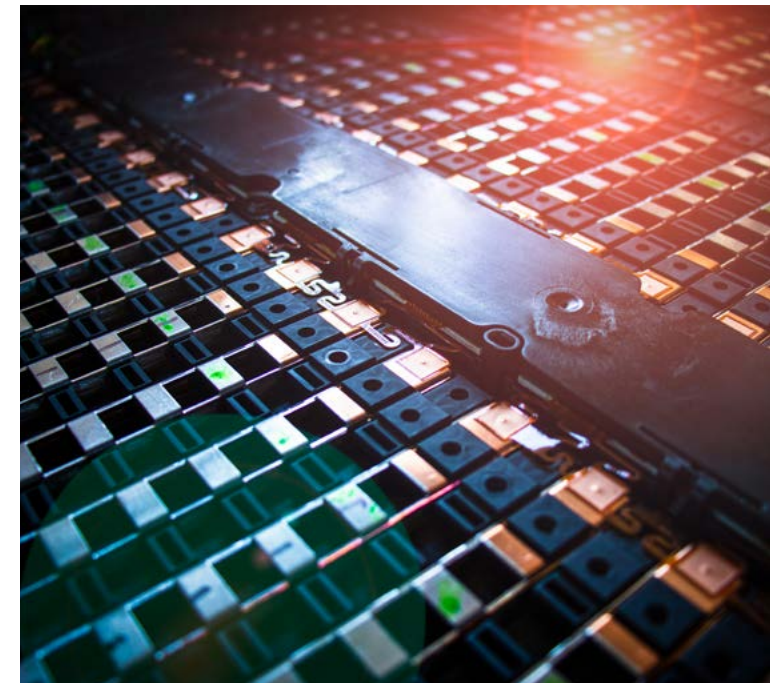
Mitigations based on the 'fire triangle' approach of removing ignition source, fuel or oxygen; may have limited effect when dealing with lithium battery system 'fires'.

If thermal control is lost or if cells are damaged, an uncontrolled chemical reaction or 'thermal runaway' is possible, leading to rapid heat gain and the venting of potentially flammable and/or toxic gasses. Battery module designs mitigate the propagation of limited thermal events. In an emergency, reference should be made to information provided by the manufacturer on the removal of heat. Fire-fighting media need to be suited to the removal of heat from the system and the reduction of heat

transfer. Water or low expansion foam are best suited to this task.

Keeping the BMS connection active during a fire event allows the propagation of an event to be monitored from outside the space.

Battery module designs may include separate ventilation ducting for gasses evolved and it is often the case that keeping these open during an emergency represents the appropriate defined safe state.



Annual Testing of Voyage Data Recorders.

Class News 18/2019

20 November 2019

Applicability: shipowners, ship operators, ship managers, ship masters.

The IMO has recently published circular MSC.1/Circ.1222/Rev.1*. This updates its requirements for the annual performance tests of voyage data recorders (VDRs) and simplified voyage data recorders (S-VDRs), as required by SOLAS Regulation V/18.8. The revised circular also clarifies the requirements for the examination of VDR float-free capsules approved in accordance with IMO Resolution MSC.333(90).

VDRs installed on or after 1 July 2014, are required to be approved to the IMO Resolution MSC.333(90). This resolution also requires VDRs to be fitted with float-free capsules that comply with the requirements specified in Resolution A.810(19) - "Performance Standards for EPIRBs".

What should owners and operators do now?

Owners and operators need to ensure that the annual performance testing of VDRs and S-VDRs are carried out in accordance with MSC.1/Circ.1222/Rev.1. And for VDR float-free capsules approved in accordance with IMO Res. MSC.333(90), annual performance testing includes an examination according to MSC.1/Circ.1040/Rev.1 - "Revised Guidelines on Annual Testing of Satellite EPIRBs".

*MSC.1/Circ.1222/Rev.1 - Guidelines on annual testing of VDRs and S-VDRs
- changes highlighted.



New IMO procedures for maintenance and inspection of lifeboats, rescue boats and fast rescue boats, launching appliances and release gear.

Class News 16/2019

07 October 2019

Applicability: shipowners, ship operators, ship managers, ship masters, service suppliers and manufacturers.

The IMO is amending the requirements for carrying out the periodic servicing of life-saving appliances, and is also amending the requirements for authorisation of service suppliers/providers carrying out the periodic servicing.

IMO Resolution MSC.404(96) amends SOLAS Regulation III/20.11, which contains requirements for periodic servicing of launching appliances and release gear, to mandate the requirements included in Resolution MSC.402(96) 'Requirements for Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair of Lifeboats and Rescue Boats, Launching Appliances and Release Gear'.

IMO Resolution MSC.402(96) effectively supersedes and mandates the requirements previously included in MSC.1/Circular.1206/Rev.1 and also MSC.1/Circular 1277.

The resolutions introduce new requirements for:

- Thorough examination and operational testing lifeboats (including free-fall lifeboats), rescue boats and fast rescue boats

- Thorough examination and operational testing of off-load release gear for lifeboats (including primary and secondary means of launching appliances for free-fall lifeboats), rescue boats and fast rescue boats
- Manufacturers (including OEMs), who carry out servicing, are required to comply with IMO Res. MSC.402(96) requirements for Authorisation of Service Providers.
- Certification issued by service suppliers/providers to their personnel, must include the level of qualification and scope of the certification (i.e. makes and types/models of equipment and specifically stated activities, such as annual or five-yearly inspections).
- Weekly and monthly inspections and routine maintenance, as specified in the equipment maintenance manual(s). These must be conducted by authorised service providers, or by shipboard personnel under the direction of the senior ship's officer in accordance with the maintenance manual(s).
- Annual thorough examinations and operational tests and/or five-year thorough examinations, overhaul, overload operational tests and repairs, must be carried out by certified personnel of either the manufacturer or an authorised service provider

Lloyd's Register's Procedures for the Approval of Service Suppliers has been updated because of IMO Resolution MSC.402(96), and the resultant changes to IACS UR Z17.

Service suppliers/providers that require approval to IMO Resolution MSC.402(96) should contact their local Lloyd's Register office.

What should owners and operators do now?

Owners and operators must ensure that, from 1 January 2020, all required thorough examinations, operational tests, overhaul and repair of equipment are carried out by personnel certified by an authorised service provider in accordance with IMO Resolution MSC.402(96) for each make and type/model of equipment to be worked on.

Safety notice issued for Dräger Saver CF type Emergency Escape Breathing Devices.

Class News 14/2019

10 September 2019

Applicability: shipowners, ship operators, ship managers, ship masters, shipbuilders, agents and any other users of Dräger Saver CF type Emergency Escape Breathing Devices.

Dräger Safety has issued a safety notice (which includes a letter and attachment) highlighting that the hood visor material on a number of its Saver CF type Emergency Escape Breathing Devices (EEBDs) will not offer the required level of protection at extreme low temperatures and, in some instances, cracking of the visor may occur.

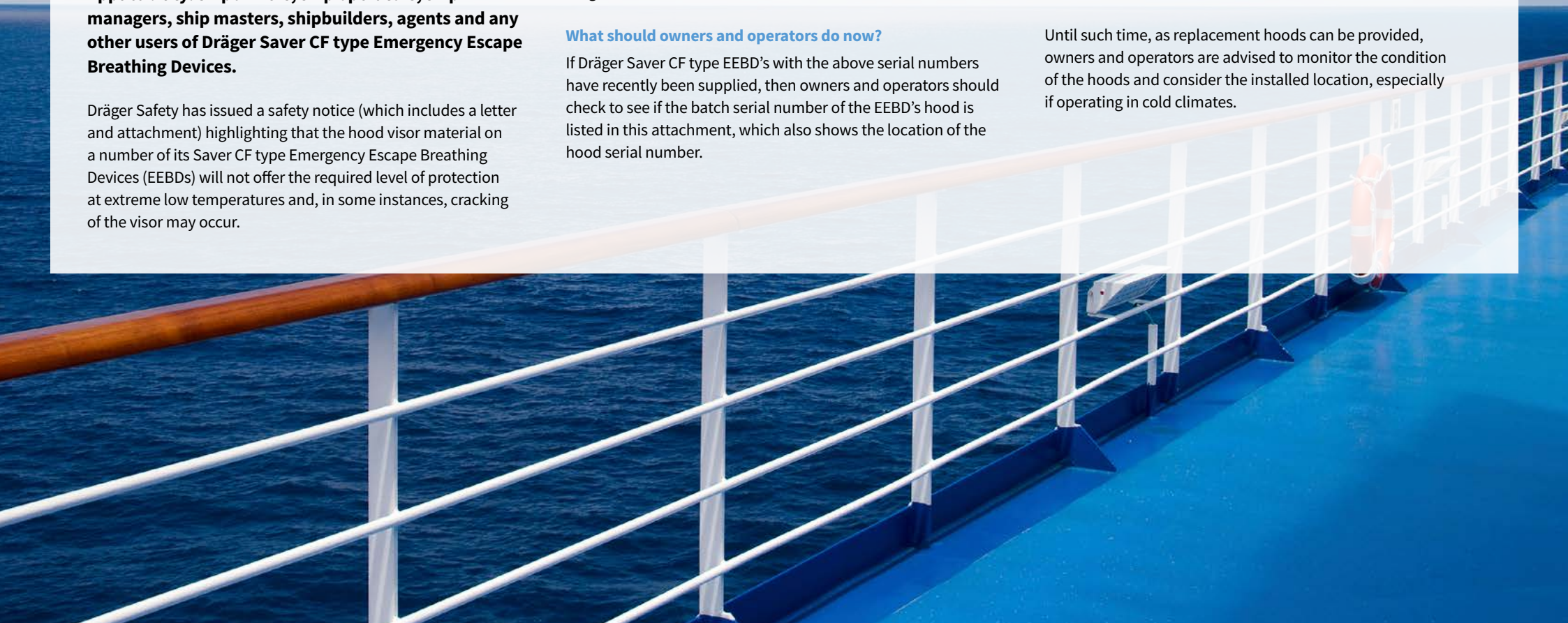
The hoods are provided on Saver CF type EEBD's manufactured between 1 May 2018 and 2 July 2019, with serial numbers in the range from BRLE-0001 to BRMH-9999.

What should owners and operators do now?

If Dräger Saver CF type EEBD's with the above serial numbers have recently been supplied, then owners and operators should check to see if the batch serial number of the EEBD's hood is listed in this attachment, which also shows the location of the hood serial number.

If the hood serial number is listed, then Dräger has advised that replacement hood assemblies will be supplied through their sales network.

Until such time, as replacement hoods can be provided, owners and operators are advised to monitor the condition of the hoods and consider the installed location, especially if operating in cold climates.



Statutory alert: Reminder – new SOLAS requirements for damage control drills on board passenger ships.

Class News 12/2019

29 August 2019

Applicability: all SOLAS certificated passenger ships.

Further to Class News 40/2017. The IMO's additional regulation to SOLAS – Chapter II-1, Regulation 19-1, 'Damage control drills for passenger ships' – enters into force on 1 January 2020 and will apply to all passenger ships. SOLAS Chapter III is also amended, to require damage control duties to be detailed in the ship's muster list.

This regulation requires crew members with damage control responsibilities to participate in a drill at least every three months. Each drill must include the relevant crew members reporting to stations and preparing for their duties, as detailed on the ship's muster list.

If fitted, the ship's onboard damage stability computer should be used to conduct assessments of the simulated damage, and a communications link should be established to any shore-based support, if provided.

At least one damage control drill each year shall include activation of the shore-based support, if provided (in compliance with regulation II-1/8-1.3), to conduct stability assessments for the simulated damage conditions.

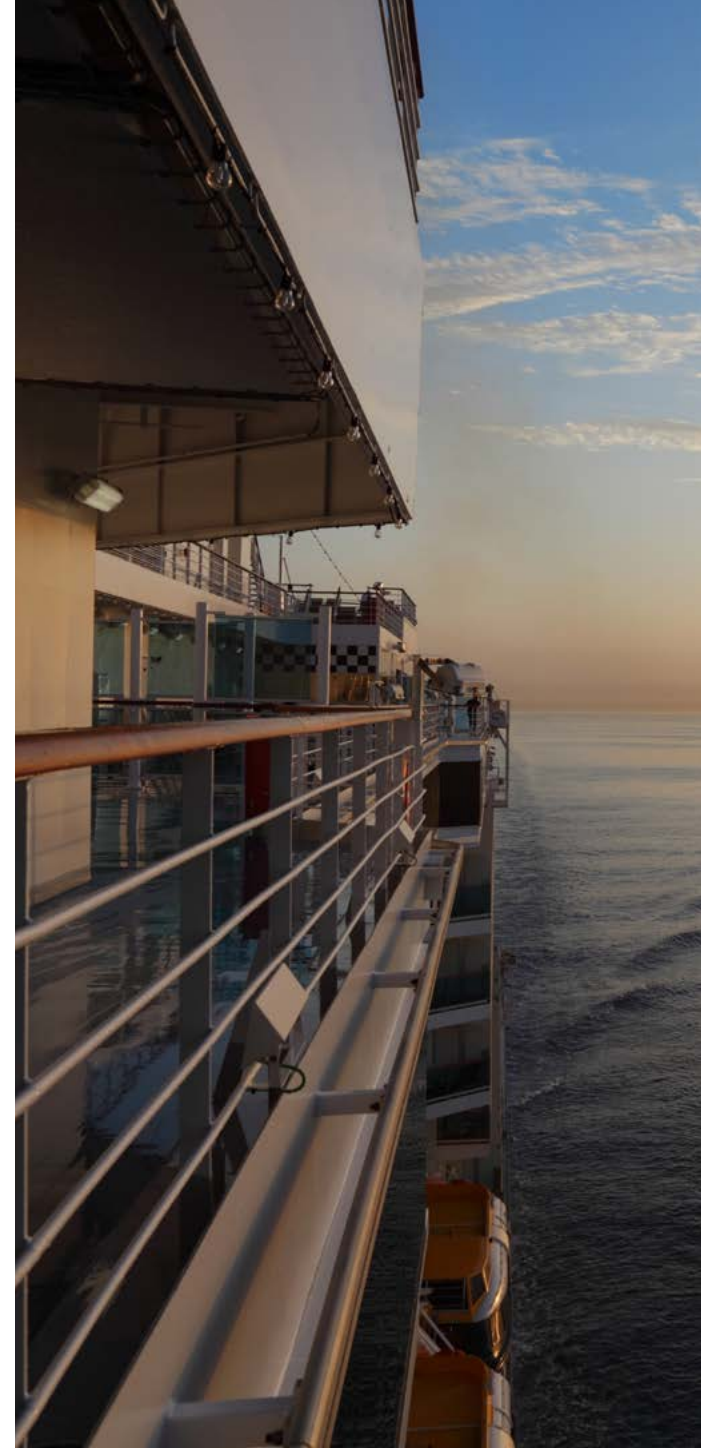
Further requirements for each drill include: the operation of watertight doors and bilge pumps, as well as demonstrating proficient use of the flooding detection system and any cross-flooding arrangements.

The changes to SOLAS are detailed in Resolution MSC.421(98), adopted on 15 June 2017.

What should owners and operators do now?

Owners and operators of passenger ships should make the necessary changes to their ship's muster lists and procedures no later than 1 January 2020.

On shore-based support from LR's ship emergency response service can be found on our SERS webpage.





Statutory alert: safety notices issued for Jiaxing Rongsheng RSF-I immersion suits.

Class News 09/2019

19 June 2019

Applicability: shipowners, ship operators, ship managers, ship masters, shipbuilders and agents.

This Class News is a reminder that SOLAS Regulation III/20.7.2 requires immersion suits to be carefully examined during monthly inspections of lifesaving appliances. Recent safety notices should also be noted again.

In March 2018, the United States Coast Guard (USCG) issued a safety notice for immersion suits after discovering instances where the glue used to attach the main zipper to the body of the suit had failed.

Subsequently, safety notices have been published on the websites of the Italian Coast Guard and German and Swedish Flag Administrations. From the information reported in the safety notices, the suits are stated to be model 'RSF-I' manufactured by the Jiaxing Rongsheng Lifesaving Equipment Co., Ltd.

In addition, many Flag Administrations require:

- Monthly inspection to be carried out in accordance with MSC/Circ.1047, Guidelines for the monthly shipboard inspection of immersion suits and anti-exposure suits by ships' crew
- Periodic testing in accordance with MSC/Circ.1114, Guidelines for periodic testing of immersion suit and anti-exposure suit seams and closures.

If immersion suits are found to be defective, they should be replaced. For type approved products, onboard repair should only be attempted if suitable documented repair procedures proposed by the manufacturer, and approved in line with the Type Approval process, are available.

Changes to time signals in Global Positioning System.

Class News 04/2019

26 February 2019

Applicability: shipowners and operators.

On 6 April 2019, how Global Positioning System (GPS) devices display time may be affected by a change in the GPS navigation message signals.

The way GPS broadcasts time and date information involves a 10-bit week number (0-1,023), which resets or “rolls over” every 1,024 weeks or approximately 19.6 years. The next week number rollover will occur on 6 April 2019.

The 2019 GPS Week Number Rollover could have a potential effect upon GPS receivers (including GPS sensors and GPS receivers embedded within multi-function displays, chart-plotting products, AIS receivers and VHF radios) and any of their features dependent on date/time information.

Advice to shipowners

Owners of ships fitted with equipment reliant on GPS signals, should:

- Ensure the equipment’s firmware is up to date
- Contact the manufacturer to ensure the equipment will not be adversely affected by this event

See Department of Homeland Security release of the memorandum titled U.S. Owners and Operators Using GPS to Obtain Time.

IMO 2020/MARPOL.

22/2019: Reminder of 2020 MARPOL requirements for ozone depleting substances (HCFCs)

11/2019: USCG Safety Notice Issued for 'BilgMon 488' Bilge Alarm

08/2019: New IMO guidelines on implementation of sulphur 2020

06/2019: Fuel Oil Consumption Data at Change of Flag or Company

05/2019: Discharge of exhaust gas recirculation (EGR) bleed-off water

03/2019: Submitting emissions data for the EU MRV regulation

02/2019: Preparation for 1 January 2020 – low sulphur fuel requirement



Reminder of 2020 MARPOL requirements for ozone depleting substances (HCFCs).

Class News 22/2019

20 December 2019

Applicability: shipowners, ship operators, ship managers, shipbuilders.

Prohibition of new installations containing HCFCs from 1 January 2020.

This is a reminder that the requirements of MARPOL Annex VI, Regulation 12 regarding ozone depleting substances will come into effect from 1 January 2020.

These include prohibiting installations that contain hydro-chlorofluorocarbons (HCFCs):

- on ships constructed (keel lay date) on or after 1 January 2020; or
- in the case of ships constructed (keel lay date) before 1 January 2020, which have a contractual delivery date of the equipment to the ship on or after 1 January 2020 or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1 January 2020

Existing ships, which use HCFCs within the systems and equipment, may continue to do so in accordance with the existing requirements of MARPOL Annex VI, Regulation 12 and any other national or international regulations, as applicable to the ship. These include the obligations towards the Flag state to which it is registered, and/or the local legislation imposed by the port state.

USCG Safety Notice Issued for ‘BilgMon 488’ Bilge Alarm.

Class News 11/2019

20 August 2019

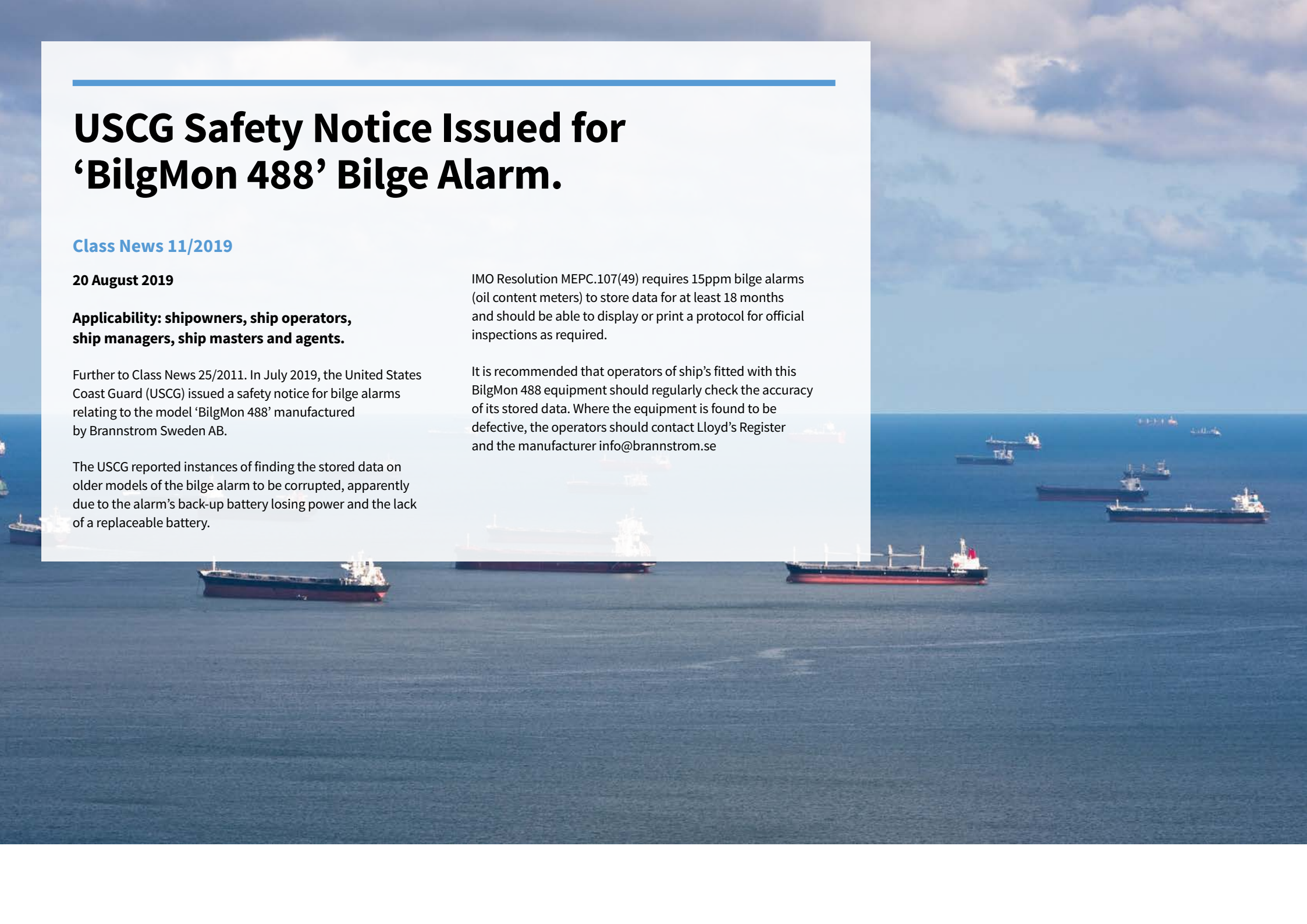
Applicability: shipowners, ship operators, ship managers, ship masters and agents.

Further to Class News 25/2011. In July 2019, the United States Coast Guard (USCG) issued a safety notice for bilge alarms relating to the model ‘BilgMon 488’ manufactured by Brannstrom Sweden AB.

The USCG reported instances of finding the stored data on older models of the bilge alarm to be corrupted, apparently due to the alarm’s back-up battery losing power and the lack of a replaceable battery.

IMO Resolution MEPC.107(49) requires 15ppm bilge alarms (oil content meters) to store data for at least 18 months and should be able to display or print a protocol for official inspections as required.

It is recommended that operators of ship’s fitted with this BilgMon 488 equipment should regularly check the accuracy of its stored data. Where the equipment is found to be defective, the operators should contact Lloyd’s Register and the manufacturer info@brannstrom.se



New IMO guidelines on implementation of sulphur 2020.

Class News 08/2019

5 June 2019

Applicability: shipowners, ship operators, ship managers and shipbuilders.

Further to Class News 02/2019, new IMO guidelines have been published for the consistent implementation of its 0.50% global fuel sulphur limit reduction, which enters into force on 1 January 2020.

The guidelines (IMO Res. MEPC.320(74)), which can be found here, were agreed at the 74th session of the IMO's Marine Environment Protection Committee (MEPC 74), held on 13-17 May.

Relevant sections of the guidelines are intended to be used by Flag States and Port States, shipowners and operators, shipbuilders and fuel oil suppliers. They cover:

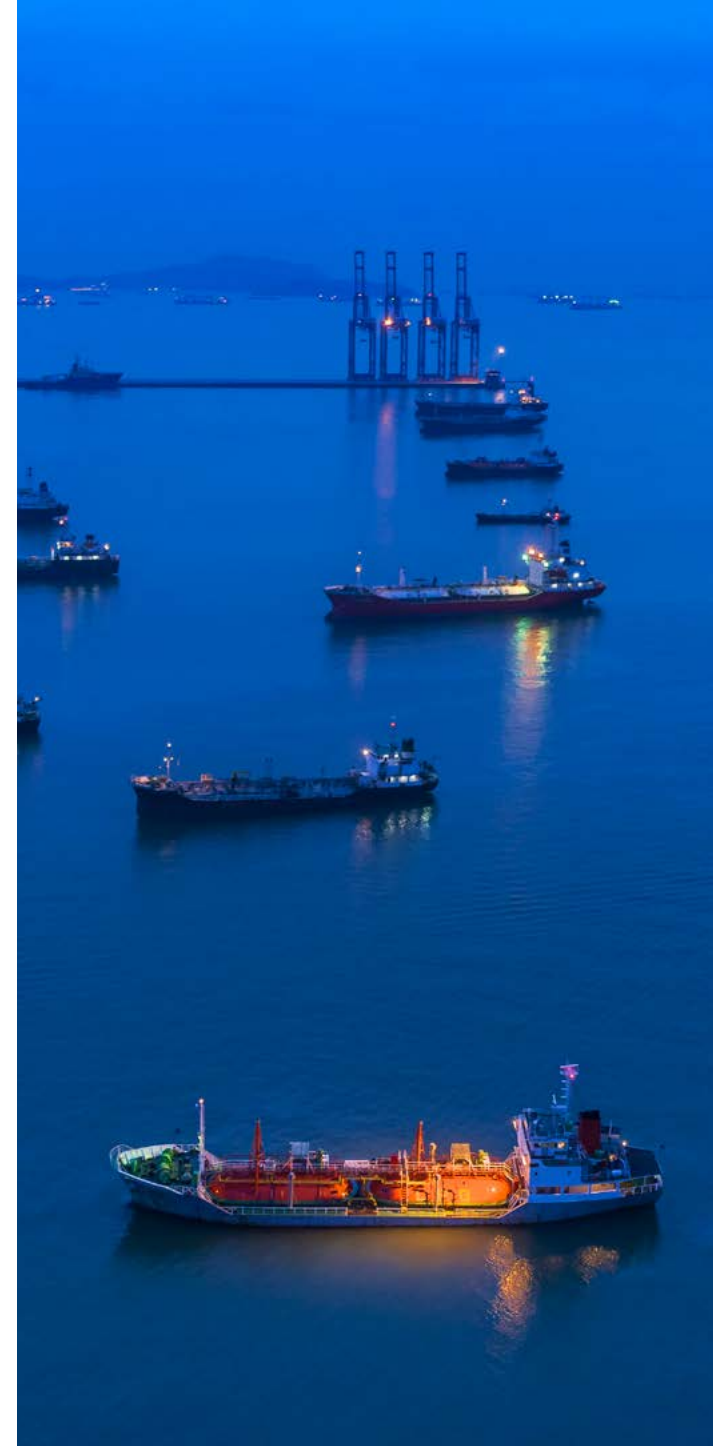
- Implementation plans,
- Impact on fuel and machinery systems,
- Verification issues and control mechanism and actions,
- Fuel oil non-availability (including a standard format for a FONAR report), and
- Possible safety implications relating to fuels meeting the 0.50% limit

Lloyd's Register encourages shipowners and operators to review these guidelines in preparation for the 1 January 2020 compliance deadline. A FONAR template is available on our Sulphur 2020 web page.

MEPC 74 also agreed other guidelines, which are related to the sulphur limit reduction, as follows:

- Resolution MEPC.321 (74) "2019 Guidelines for Port State Control under MARPOL Annex VI Chapter 3".
- MEPC.1/circular 881 "Guidance for port state control on contingency measures for addressing non-compliant fuel oil".
- MEPC.1/circular 882 "Early application of the verification procedures for a MARPOL Annex VI fuel oil sample".
- MEPC.1/circular 883 "Guidance on Indication of Ongoing Compliance in the Case of the Failure of a Single Monitoring Instrument, and Recommended Actions to take if the EGCS Fails".
- MEPC.1/circular 884 "Guidance for best practice for member states/coastal states".
- MEPC.1/circular 864/Rev.1 "2019 Guidelines for on board sampling for the verification of the sulphur content of fuel oil"

For further information on any of these, please refer to LR's report of MEPC 74 available here.



Fuel Oil Consumption Data at Change of Flag or Company.

Class News 06/2019

07 March 2019

Applicability: shipowners and operators.

As reported in Class News 33/2017 and 25/2018, the IMO has introduced a mandatory fuel oil consumption data collection system (IMO DCS). It requires internationally voyaging ships, of 5000gt or above, to collect fuel consumption data from 1 January 2019.

The IMO DCS requires that, when a ship changes Company*, the fuel oil consumption data collected for the year to date has to be reported to the Flag/Recognised Organisation (RO) on the day of completion or as close as practical.

Similarly, when a ship changes Flag (or changes Flag and Company), the fuel oil consumption data collected for the year to date has to be reported to the losing Flag/RO on the day of transfer or as close as practical.

The Flag/RO will then issue a 'Statement of Compliance – Fuel Oil Consumption Reporting' for that period of time.

What should owners and operators do now?

New owners/managers of ships should ensure that the old owner/manager submits fuel oil consumption data for the year to date and subsequently provides a copy of the 'Statement of Compliance – Fuel Oil Consumption Reporting' for that period of time.

If you are considering selling your vessel or transferring a vessel from your management, you need to undertake data verification and provide this to the new owner/operator. Lloyd's Register clients should contact us at the earliest opportunity to ensure all required data is available for submission.

Lloyd's Register provides a cloud-based compliance solution called CO₂ Verifier to assist you with verification of both IMO DCS and EU MRV data. Details of CO₂ Verifier can be found on our website along with Guidance on SEEMP Part I and Part II and other Guidance on the EU MRV regulation and the IMO DCS.

*Company means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship and who on assuming such responsibility has agreed to take over all the duties and responsibilities imposed by the ISM Code.



Discharge of exhaust gas recirculation (EGR) bleed-off water.

Class News 05/2019

06 March 2019

Applicability: engine manufacturers and owners and operators of ships that are subject to air emission controls under MARPOL Annex VI.

The 2018 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water were adopted by IMO Resolution MEPC.307(73) on 26 October 2018.

The Guidelines apply to marine diesel engines fitted with EGR NOx-reducing devices, which are initially issued with an Engine International Air Pollution Prevention (EIAPP) certificate on or after 1 June 2019 to comply with MARPOL Annex VI.

As required in the Guidelines, the following documents should be retained on board the ship and are subject to survey and inspection, if applicable to the marine diesel engine fitted with an EGR device:

1. Manual for EGR bleed-off discharge system
2. EGR record book
3. Oil content meters: type approval certificate (MED certificate if applicable) and their operation and maintenance manuals

The Guidelines also require:

1. Different requirements for EGR bleed-off water discharge, when the marine diesel engine is using fuel oil either compliant or non-compliant with the relevant sulphur content limit in Regulation 14 of MARPOL Annex VI

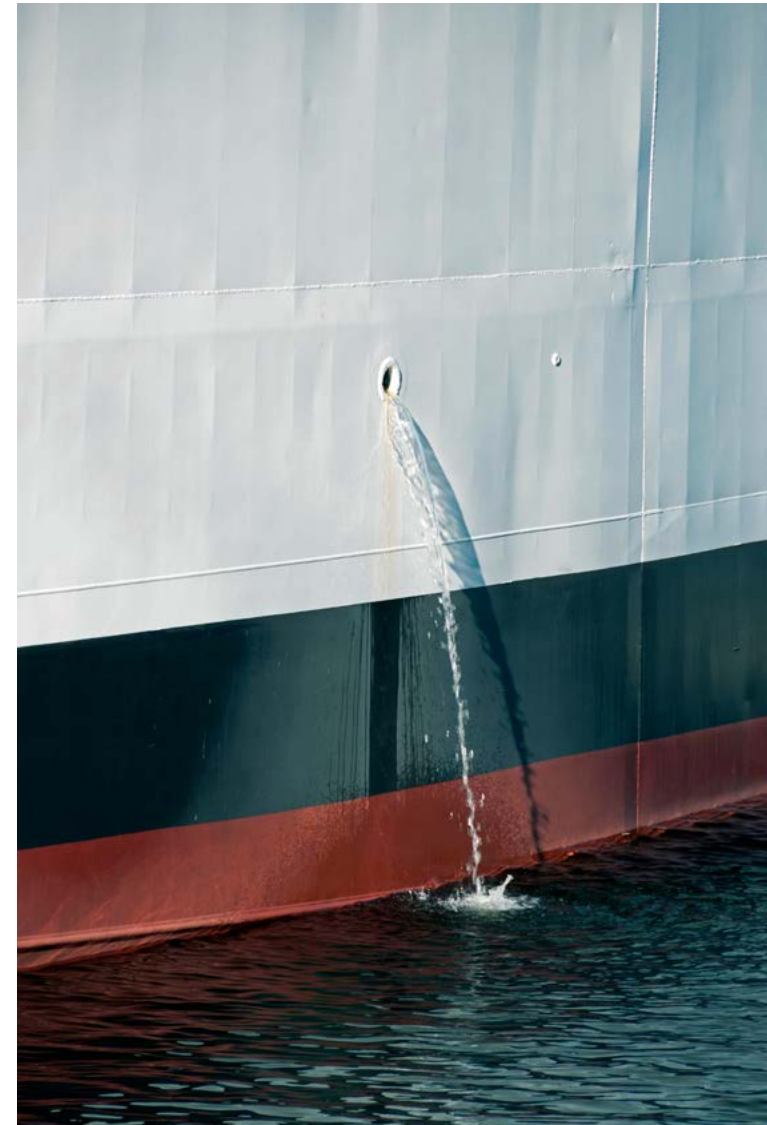
2. The residues from EGR water treatment system to be delivered ashore and not discharged to the sea or incinerated on board
3. Additives used for enhancing the bleed-off water quality to be assessed and documented or documented with a Material Safety Data sheet, if applicable
4. The EGR bleed-off discharge system and the EGR record book to be subject to survey on installation and at initial, annual/intermediate and renewal surveys and be subject to inspection by relevant parties

What should engine manufacturers do?

The applicability of the Guidelines is linked with the issuance date of the engine's EIAPP certificate at the end of the engine approval process, and not the application date for the approval, or the date when the engine testing is undertaken. Therefore, engine manufacturers are encouraged to review and comply with the Guidelines as soon as possible, rather than waiting for 1 June 2019.

Background information

EGR is one of the methods used to control NOx emissions (as required by MARPOL Annex VI regulation 13). By means of this process, condensate of exhaust gas is generated and discharged as bleed-off water, which should be handled differently depending on the fuel oil sulphur content. These Guidelines were developed to specify requirements for the discharge to the sea of bleed-off water when using EGR.



Submitting emissions data for the EU MRV regulation.

Class News 03/2019

18 February 2019

Applicability: shipowners and ship operators greater than 5,000 gt making commercial voyages into, out of or between EU ports.

The first emissions reports for ships subject to the EU MRV (Monitoring, Reporting and Verification) regulation* now need to be submitted for verification.

This Class News clarifies the processes and systems to be used (further to Class News 28/2017) for Lloyd's Register (LR) clients.

For each affected ship, the emissions report needs to be verified and submitted to the EC and to the ship's flag by the company by 30 April 2019.

The regulation requires reports to be submitted directly to the THETIS-MRV system, which is operated by the European Maritime Safety Agency (EMSA). LR clients are requested to submit their emissions reports by 28 February 2019.

All documentation other than the emissions reports (i.e. monitoring plans and emission report evidence packs) should be submitted to CO₂ Verifier. As the accredited verification body, LR will then retrieve the reports from THETIS-MRV for verification and upload them to CO₂ Verifier, where full documentation and deliverables will be available for LR clients.

Before entering emissions reports into THETIS-MRV, clients need to set up a "partnership" with LR within the system to allow us access to your data. We appear as "Lloyd's Register Quality Assurance Ltd".

For guidance on the use of THETIS-MRV and the steps involved, see EMSA's videos at <http://emsa.europa.eu/thetis-mrv-videos.htm>

For each ship, the annual aggregated data needs to be reported into THETIS-MRV. As an option, individual voyage data can also be entered. If you choose not to use this option, please submit all voyage data through CO₂ Verifier so it can be verified.

If the monitoring plan for a ship has been uploaded to CO₂ Verifier, it's only optional for it to be uploaded to THETIS-MRV as well.

By 30 June 2019, affected ships are required to display a document of compliance on board, and the EC will publish the emissions data.

Note on Brexit: Lloyd's Register is an accredited verification body delivering EU MRV services. LR will continue to deliver EU verification work for our clients independent of ongoing arrangements for the departure of the United Kingdom from the European Union.

*EU Regulation 2015/757 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport.





Preparation for 1 January 2020 – low sulphur fuel requirement.

Class News 02/2019

12 February 2019

Applicability: shipowners and ship operators that are subject to air emission controls under MARPOL Annex VI.

The International Maritime Organisation (IMO) has published guidance for the recommendation that ships prepare a ship implementation plan outlining the key activities the ship needs to carry out to ensure ships meet its 0.50% sulphur limit for marine fuels used outside emissions control areas (ECAs), on 1 January 2020.

This guidance for shipowners, managers, charterers and other stakeholders, given in the circular (MEPC.1/Circ.878), is aimed at encouraging ships to itemise the critical tasks that need to be carried out. These include fuel change risk assessments, switch-over timing, any structural tank or fuel system modifications, cleaning of tanks and crew awareness programmes along with

addressing new bunker compatibility challenges and cold flow storage considerations.

Although the plan is a recommendation and not a statutory requirement, and does not require approval by the flag Administration or the classification society, it will help in the smooth transition towards the use of low sulphur fuels and validate the compliance processes adopted onboard. In preparing the plan, you may find the need for modification of tanks/piping. Some adjustment of the engines and boilers may also be necessary. Any modifications are to be submitted for review and approval by LR.

If you need any assistance with your plan or in preparing for the use of low sulphur fuel, please visit our website.

Background information

Use of 0.50% sulphur fuel outside ECAs was an element of the 2008 amendments to the MARPOL Convention in resolution

MEPC.176(58) and entered into force on 1 July 2010. The implementation date of 1 January 2020 for the fuel oil standard in regulation 14.1.3 of MARPOL Annex VI was confirmed by resolution MEPC.280(70) and adopted in October 2016.

To enforce these requirements, the IMO Marine Environment Protection Committee's 2018 session (MEPC 73) also adopted a "carriage ban" of non-compliant fuel. This will enter into force on 1 March 2020. By that time, any unused non-compliant fuel not fully consumed prior to 1 January 2020, but kept onboard, has to be de-bunkered.

In addition, further supplemental guidelines will be finalised by IMO's PPR 6 meeting scheduled for February 2019 for final approval by MEPC 74, scheduled for May 2019.

Concentrated inspection campaign on emergency systems and procedures.

13/2019: Concentrated inspection campaigns by regional MoUs

10/2019: Concentrated inspection campaign by Paris MoU and Tokyo MoU

Concentrated inspection campaigns by regional MoUs.

Class News 13/2019

30 August 2019

Applicability: shipowners and ship operators.

Shipowners, managers and crews need to be prepared for a concentrated inspection campaign (CIC) on Emergency Systems and Procedures, a three-month initiative run concurrently by the Riyadh Memorandum of Understanding (MoU), Indian Ocean MoU and Abuja MoU (for the West and Central Africa Region) on Port State Control (PSC). This follows a previous announcement of the CIC by the Paris and Tokyo MoUs.

The CIC, which runs from 1 September-30 November 2019, aims to ensure that:

- Ships can respond appropriately and promptly to emergency situations
- Shipping companies and ship managers are reminded of the importance of ship emergency systems
- On-board emergency systems are operated properly and managed efficiently
- Masters and all seafarers understand their assigned roles, duties and emergency procedures and can act immediately when needed

Port State Control Officers (PSCOs) will use this questionnaire to evaluate:

- Normal operation of main emergency systems, such as emergency fire pumps, emergency generators and steering gear

- Maintenance and operation of systems are being carried out at the proper intervals
- Ship's officers and crew's familiarity with emergency systems and equipment operation

If deficiencies are found, actions by the port state can vary from recording the deficiency and instructing the master to rectify it within a certain period to detention until serious deficiencies have been rectified.

Shipowners and managers are advised to highlight this information to ships and to ensure masters and seafarers are ready to meet the requirements of the CIC.

CIC on Emergency Systems and Procedures

1. Damage Control Plans and Booklets

Check these are complete and have been updated as necessary. Ensure that the plans are readable and do not contain wrong information.

Masters and officers need to be familiar with the plans and procedures and they should be in regular use during drills on board.

2. Public Address System

Where a public address system is fitted, check that loudspeakers are working correctly. Ensure the system is operable from the navigation bridge and from any other space on board the ship as required by the Flag Administration, e.g. Emergency HQ.



Ensure protection against unauthorised use is provided.

On board passenger ships, the public address system should be connected to the emergency source of electrical power.

3. Water Level Detectors or Water Ingress Systems

Where a water level detector or a water ingress system is fitted confirm the sensors are fitted properly and the alarm system is fully operational, including both visual and audible alarms on the bridge.

4. Steering Gear and Associated Emergency Alarms

Check that main and auxiliary steering systems will restart automatically when power is restored following a blackout or power failure.

Audible and visual alarms in the event of a failure of the main or auxiliary steering gears, or in the event of a low level of the hydraulic fluid reservoirs must be fully operational. Officers and engineers should ensure they are familiar with the operation of the steering gears and the alarm systems provided on the navigation bridge and in the machinery space. This should include being able to verify the proper operation of sensors for a low-level alarm.

5. Muster List

Muster lists must be readable, updated as necessary and be displayed in conspicuous places throughout the ship, including the navigation bridge, engine room and in crew accommodation spaces.

Ensure the muster list provides:

- Details of the general emergency alarm, the public address system and actions to be taken by passengers and crew members in the event of an emergency
- Details of how the order to abandon ship will be given
- Which officers are responsible for the maintenance and

life-saving and fire-fighting appliances and ensuring they are ready for immediate use

- Details of the substitutes for key personnel who may become disabled
- The duties assigned to the different crew members

Check the muster list has been updated if a crew change takes place that requires an alteration to the muster list.

On passenger ships the muster list has to be approved and must show the duties assigned to crew members in relation to passengers. Each passenger ship is to have procedures in place for locating and rescuing passengers from their staterooms.

Crew members should ensure they are familiar with the emergency duties assigned to them.

6. Emergency Source of Electrical Power

The emergency source of electrical power must supply power properly to essential equipment including emergency lighting, which must be properly installed and fully operational.

Essential equipment for cargo ships includes:

- General alarm
- Navigation lights and other lights
- Daylight signalling light, ship's whistle, manually operated call points and all internal signals
- Navigational equipment
- Fire detection and fire alarm system
- Steering gear
- VHF radio installation and MF/HF radio installation

In addition, for passenger ships, essential equipment includes:

- All internal communication equipment
- Sprinkler pump

- Emergency bilge pump and all essential equipment for the operation of electrically powered, remote controlled bilge valves
- Power-operated watertight doors together with their indicator and warning signal
- Emergency arrangements to bring the lift cars to deck level for the escape of persons

Confirm that the emergency source of electrical power does supply the essential equipment identified above. Ensure that master's, officers and engineers are familiar with the procedures for a black out test in case this is required by the Port State Control Officer. Ensure that essential equipment is operational and has been properly maintained.

Emergency lighting for cargo ships includes:

- At every embarkation station and over the sides
- In all service and accommodation alleyways, stair ways and exits, personnel lift cars and trunks
- In the machinery spaces and main generating stations including their control positions
- In all control stations, machinery control rooms and at each main and emergency switchboard
- At all stowage positions for firemen's outfits
- At the steering gear
- At the fire pump, at the sprinkler pump, at the emergency bilge pump, at the starting positions of their motors
- At every muster station
- In all cargo pump-rooms of tankers

In addition, for passenger ships:

- At every muster station
- In alleyways, stair ways and exits giving access to muster and embarkation station

- For ro-ro passenger ships, the supplementary lighting required in all passenger public spaces and alleyways, providing electric lighting for at least three hours when all other sources of electrical power have failed. In crew spaces portable rechargeable battery-operated lamps shall be provided in alleyways, recreational spaces and every working space normally occupied unless supplementary lighting as required in passenger spaces is provided

Confirm that emergency lighting for embarkation stations and over the sides is working and in good order. Ensure emergency lights are clean and working and are not damaged.

7. a) Where the emergency source of electrical power is a generator

Confirm that the emergency generator can supply power to the emergency switchboard within 45 seconds. A battery capable of starting at least three consecutive times should be installed and in good condition. Electric, hydraulic, spring start and compressed air starters can be installed. Check there is sufficient fuel for the emergency equipment operation time (36 hours for passenger ships and 18 hours for cargo ships).

Ensure indicator gauges for items such as lub. oil pressure, cooling water temperature and RPM are working. Confirm the state of frequency, voltage and insulation resistance can be confirmed and that safety devices for the protection of the prime mover are operational. Crew members should be familiar with the test equipment where a separate device is installed to test the automatic starting system.

b) Where the emergency source of electrical power is an accumulator battery

Ensure the emergency batteries and charge switches have been properly installed. Battery compartments are to be suitable ventilated.

Confirm that emergency batteries have been regularly checked as part of the ship's maintenance system and that records are up to date. Check cable connections and for any leakage of electrolyte. Confirm that indicators on the emergency switchboard are in good order.

7. Emergency fire pump

The emergency fire pump must be capable of producing at least two jets of water at the required pressure. The emergency fire pump may be driven by an electric motor powered from the emergency generator or from a diesel engine. Confirm the fuel tank has sufficient fuel for at least three hours and that reserve fuel is provided outside the machinery space, sufficient for an additional 15 hours.

Ensure the emergency fire pump is operational and can deliver the required water pressure.

8. Fire and abandon ship drills

Confirm that records of fire and abandon ship drills are maintained and up to date. If it has not been possible to carry out a drill as scheduled, the reason is to be recorded in the ship's logbook. Ensure that crew members are familiar with their duties and are capable of safely operating the lifesaving and firefighting equipment. The second-in-charge of emergency teams should practise taking charge of the team to ensure they are confident to take over a team leader.

10. Familiarity with the operation of emergency equipment

Identified, responsible crew members must be familiar with the operation of the following equipment and may be asked to give a practical demonstration of its use:

- Public address system
- Water level detectors
- Steering gear

- Emergency source of electric power (emergency switchboard, generator or accumulator batteries)
- Emergency fire pump

11. Detentions

In the event that essential equipment is non-operational (e.g. due to planned maintenance or a failure of equipment), masters and officers should ensure this is reported to the Port State Control Officer before an inspection commences. This may still result in a deficiency being raised but it can prevent that deficiency being recorded as a detainable deficiency.



Concentrated inspection campaign by Paris MoU and Tokyo MoU.

Class News 10/2019

Applicability: shipowners, ship operators and ship managers.

Shipowners, managers and crews need to be prepared for a Concentrated Inspection Campaign (CIC) on Emergency Systems and Procedures, a joint three-month initiative by the Paris Memorandum of Understanding (MoU) and Tokyo MoU on Port State Control (PSC).

The CIC, which runs from 1 September-30 November 2019, aims to ensure that:

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CIC on Emergency Systems and Procedures

1. Damage Control Plans and Booklets

Check these are complete and have been updated as necessary. Ensure that the plans are readable and do not contain wrong information.

Masters and officers need to be familiar with the plans and procedures and they should be in regular use during drills onboard.

2. Public Address System

Where a public address system is fitted, check that loudspeakers are working correctly. Ensure the system

is operable from the navigation bridge and from any other space on board the ship as required by the Flag Administration, e.g. Emergency HQ.

Ensure protection against unauthorised use is provided.

On board passenger ships, the public address system should be connected to the emergency source of electrical power.

3. Water Level Detectors or Water Ingress Systems

Where a water level detector or a water ingress system is fitted, confirm the sensors are fitted properly and the alarm system is fully operational, including both visual and audible alarms on the bridge.

4. Steering Gear and Associated Emergency Alarms

Check that main and auxiliary steering systems will restart automatically when power is restored following a blackout or power failure.

Audible and visual alarms in the event of a failure of the main or auxiliary steering gears, or in the event of a low level of the hydraulic fluid reservoirs, must be fully operational. Officers and engineers should ensure they are familiar with the operation of the steering gears and the alarm systems provided on the navigation bridge and in the machinery space. This should include being able to verify the proper operation of sensors for a low-level alarm.

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- Emergency arrangements to bring the lift cars to deck level for the escape of persons

Confirm that the emergency source of electrical power does supply the essential equipment identified above. Ensure that masters, officers and engineers are familiar with the procedures for a black out test in case this is required by the Port State Control Officer. Ensure that essential equipment is operational and has been properly maintained.

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Ensure the emergency batteries and charge switches have been properly installed. Battery compartments are to be suitable ventilated.

Confirm that emergency batteries have been regularly checked as part of the ship's maintenance system and that records are up to date. Check cable connections and for any leakage of electrolyte. Confirm that indicators on the emergency switchboard are in good order.

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The emergency fire pump must be capable of producing at least two jets of water at the required pressure. The emergency fire pump may be driven by an electric motor powered from the emergency generator or from a diesel engine. Confirm the fuel tank has sufficient fuel for at least three hours and that reserve fuel is provided outside the machinery space, sufficient for an additional 15 hours.

Ensure the emergency fire pump is operational and can deliver the required water pressure.

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Confirm that records of fire and abandon ship drills are maintained and up to date. If it has not been possible to carry out a drill as scheduled, the reason is to be recorded in the ship's logbook. Ensure that crew members are familiar with their duties and are capable of safely operating the lifesaving and firefighting equipment. The second-in-charge of emergency teams should practise taking charge of the team to ensure they are confident to take over a team leader.

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Identified, responsible crew members must be familiar with the operation of the following equipment and may be asked to give a practical demonstration of its use:

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China specific.

15/2019: New requirements for service suppliers in China

01/2019: China Regulation on Data Collection for Energy Consumption of Ships

New requirements for service suppliers in China.

Class News 15/2019

10 September 2019

Applicability: shipowners, ship operators, ship managers, ship masters and agents.

From 1 August 2019, new regulations came into force for the control and monitoring of service suppliers in China for the following categories and equipment:

1. Life saving appliances: inflatable liferafts, inflatable rescue boats, marine evacuation systems (MES), inflatable life jackets, immersion suits and lifeboats/rescue boats, launching appliances, release gear, hydrostatic release units (HRU);
2. Firefighting equipment: fixed fire detection and alarm systems, fixed fire extinguishing systems, portable/wheeled fire extinguishers, self-contained breathing apparatus (SCBA), emergency escape breathing devices (EEBD);
3. Safety of navigation and radio communication equipment: radio devices, navigation warning receivers, EPIRBs, ship earth stations, search and rescue transponders, two-way portable radios, ship security alert system (SSAS), automatic identification system (AIS), voyage data recorders (VDR);

4. Thickness measurement of a ship's structure and non-destructive testing: radiography, ultrasonic testing, magnetic particle inspection, dye penetrant inspection;
5. Ship noise measurement; and,
6. Other equipment required to be serviced by IMO Conventions or Codes

Service suppliers undertaking such services in the ports and waters of China are now required to be official registered companies in China.

Classification societies are now required to record recognised service suppliers on the web-based database of the China Marine Safety Administration (MSA).

These suppliers are also required to have workshop facilities for the servicing of fire-fighting equipment, life-saving appliances and EPIRBs. Where a service supplier's workshop is located in a different province to the port where the ship has arrived, additional monitoring will be required by a surveyor on board and at the workshop location.

For the servicing of the categories and equipment listed above, either in workshop facilities or on-board ships in Chinese waters, the service suppliers are required to issue certificates through the China MSA web-based system, which will be validated by the surveyor.

Foreign thickness measurement companies used for surveys during voyages to China will not be permitted to continue working on board vessels after arrival at the repair yard. A second thickness measurement company that is registered in China will be needed to continue the work. This will be confirmed during the approval of ESP survey planning documents.

What should owners and operators do now?

Owners and operators must ensure that all servicing done in China for the categories and equipment listed above is undertaken by service suppliers that are not only registered on the China MSA database, but also acceptable to Lloyd's Register and/or the ship's Flag Administration.

China Regulation on Data Collection for Energy Consumption of Ships.

Class News 01/2019

05 February 2019

Applicability: shipowners and ship operators trading to Chinese ports.

From 1 January 2019, a new regulation from the Chinese Maritime Safety Administration (China MSA) means ships must report the energy consumption of their last voyage when entering or leaving ports in China.

Application

This new Regulation on Data Collection for Energy Consumption of Ships, as detailed in 海危防[2018]476号*, applies to ships (excluding warships or fishing vessels), that are:

1. Of 400 gross tonnage (GT) and above; or
2. Powered by propulsion machinery of 750 kW and above
3. Flying any flag (whether for a Chinese domestic voyage or international voyage)

Requirements

Before leaving a Chinese port, a ship must submit to the MSA a report detailing the energy consumption of the last voyage**, using the “Data Report Format for Energy Consumption of Ships”, as provided in the Annex of the Regulation.

A ship can submit monthly, rather than single-voyage reports, provided it is either:

1. Sailing in the fixed region with each voyage duration of 4 hours or less; or

2. Sailing a fixed route with each voyage duration of 12 hours or less

A monthly report needs to record the energy consumption data daily, or of each voyage, in the logbook or specified record book. The aggregated data of the last calendar month then needs to be submitted to the fixed branch of the China MSA of the related calling port, before the 10th of each month.

Additional requirements, as detailed in Chapter 3 of the Regulation, apply to China-flagged ships of 5,000 GT and above, which undertake international voyages.

How to report

The required data needs to be sent electronically via China MSA’s web-based maritime integrated service system (<http://csp.msa.gov.cn>).

China-flagged ships can report by themselves or via an agency.

Non-China flagged ships need to report via an agency.

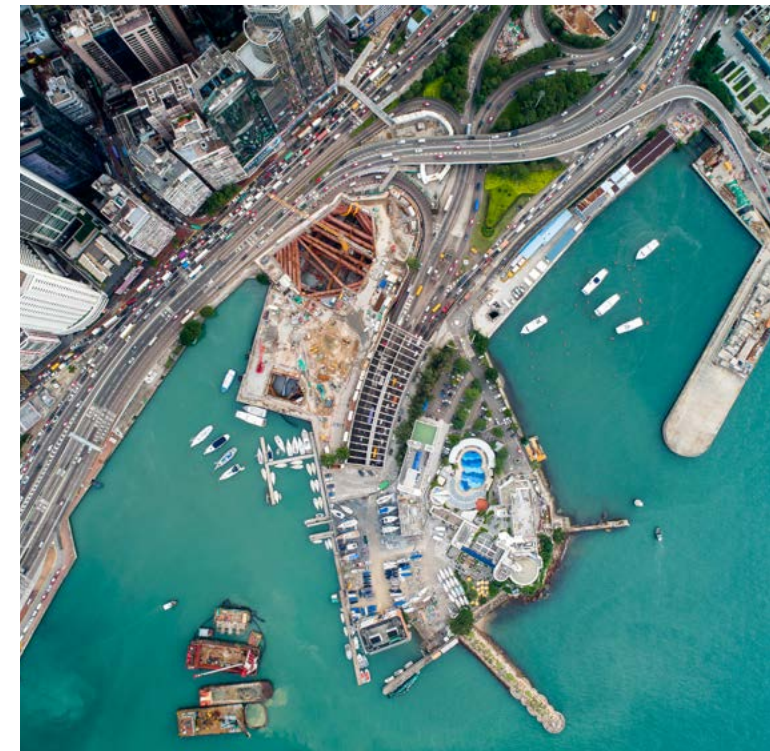
Hong Kong-flagged ships need to report via an agency, as they don’t have an MSA ship identification number and ship operation certificate, so cannot complete the registration on the platform as “ship user”.

Advice to shipowners

According to Chapter 2 of the Regulation, internationally voyaging ships do not need to report energy consumption data for voyages between ports outside China, nor for voyages from Chinese domestic ports to ports outside China.

*The English translation is just for reference only.

**“Last voyage” refers to the navigation, berthing and operation between two adjacent berths. For example, if the ship sails from Ningbo to Shanghai, before leaving Shanghai the ship should report the relevant data during the period from the berthing at Ningbo to the berthing at Shanghai.



E-certificates.

17/2019: LR complies with IMO Guidelines for newly issued and re-issued certificates for Panama flag Administration

LR complies with IMO Guidelines for newly issued and re-issued certificates for Panama flag Administration.

Class News 17/2019

12 November 2019

Applicability: shipowners, ship operators, ship managers, ship masters, shipbuilders and flag Administrations.

While ships may carry both electronically signed and paper certificates, the International Maritime Organisation (IMO) has recognised the need for a set of standards regarding the use of electronic certificates.

LR will start issuing electronic certificates in accordance with the IMO Facilitation Committee (FAL) and its approved "Guidelines for the Use of Electronic Certificates" (IMO Circular FAL.5/Circ.39/Rev.2).

From 1 November 2019 LR began issuing electronic certificates for newly issued and re-issued certificates for Panama flag Administration. The issuance of LR electronic certificates will extend to all certificate types and across all other flag authorities which have authorised their use by LR, from early 2020.

1. Validity and consistency with the format and content required by the relevant international convention or instrument as applicable:
 - Electronic certificates issued by Lloyd's Register are processed according to the same procedures and systems as paper certificates. The format and the content of the certificate are consistent with the requirements in the

conventions and are identical with the paper-based certificates except for the electronic signature. It is not necessary to print and sign the electronic certificate

2. Protected from edits, modifications or revisions other than those authorised by the issuer or the Administration:
 - The solution chosen by Lloyd's Register has inherent features securing the integrity, authenticity and the non-repudiation of the certificate, meaning that the certificate will stay intact and signed. If tampered with, a statement will clearly say that the certificate is no longer signed and valid
3. A unique tracking number used for verification:
 - A unique tracking number (UTN) will be generated per certificate. The tracking number is generated by the system and has no contextual logic (it cannot be deduced from the information in the certificate) and will be visible on the certificate
4. A printable and visible symbol that confirms the source of the issuance.
 - The Lloyd's Register stamp is visible in the signature section of the certificate instead of a hand-written signature
5. The administrators that use the website for online viewing of, or verifying, electronic certificates should ensure that these sites are constructed and managed in accordance with established information security standards for access control, fraud prevention, resistance to cyberattacks and resilience to man-made and natural disasters:

Access control and fraud prevention is achieved by means of the unique tracking number printed on each certificate, allowing authentication and verification online.

Protection against cyberattacks is implemented by means of:

- Firewalls
- Website protection: all website visits are automatically monitored, blocking hacking attempts and preventing cross-site scripting
- Email spam and virus protection is provided in Office 365 Cloud
- Intrusion detection is installed in all Lloyd's Register computers
- A managed security service: logs from firewalls, antivirus software, web server protection, and other sources are reviewed, and incident anomalies reported to Lloyd's Register's Security Incident Manager
- Regular vulnerability scans of the operating system, software and configurations
- The secure connection between a client browser and the Lloyd's Register web server is established by a https-connection

Resilience to man-made and natural disasters is documented and followed -up through Business Continuity Plans.

6. Shipowners, operators and crews on ships that carry and use electronic certificates should ensure that these certificates are controlled through the safety management system, as described in section 11 of the International Safety Management Code (please note that on ships not subject to the ISM Code, similar control processes are to be adopted):

- This is the responsibility of the owner/manager. Lloyd's Register will ensure that shipowners/managers are provided with information explaining how to authenticate and check the validity of the certificates

7. Electronic signatures applied to electronic certificates should meet authentication standards, as adopted by the Administration:

- The Lloyd's Register solution supports authentication and validation of every certificate issued
- Marine eCertificates issued by Lloyd's Register are cryptographically signed by Lloyd's Register Group Services Ltd to guarantee authenticity. This results in the "Blue Ribbon" you see at the top of a document when viewing in Acrobat Reader
- At the time of writing Lloyd's Register obtain their digital signing keys from Digital Sign CA and you will see their name in the Blue Ribbon attesting to this
- The digital signature is authenticated via third party authentication provided by Ascertia, the supplier of SigningHub



Ballast water management.

07/2019: New guidance relating to the Ballast Water Management Convention

New guidance relating to the Ballast Water Management Convention.

Class News 07/2019

29 March 2019

Applicability: shipowners, ship operators, ship managers, designers and shipbuilders.

Amendments and resolutions relating to the International Maritime Organisation's Ballast Water Management (BWM) Convention may affect ship survey and type approval work.

Be aware of the following changes, adopted by the IMO's Maritime Environment Protection Committee during its 72nd session (MEPC 72):

- **Amendments to regulation B-3 – Implementation of D-2 standard to existing ships** (Resolutions MEPC.297(72) and MEPC.298(72))

MEPC 72 formalised the decision taken at MEPC 71. Please refer to Class News 16/2017.

- **Amendment to Regulations E-1 and E-5 of the BWM Convention** (Resolution MEPC.299(72))

There is no substantial change to the decision taken by MEPC 71.

Regulation E-1 was amended to clarify that Additional surveys do not need an endorsement on the IBWM Certificate. Regulation E-5 was amended to clarify that the schedule of Annual surveys also applies to Intermediate surveys.

Ships may keep the text of the resolution onboard in case a question is raised during a Port State Control (PSC) inspection.

- **BWM.2/Circ.66 – Unified interpretation relating to the International Ballast Water Management Certificate**

This clarifies the “date installed” of a D-2 compliant ballast water management system (BWMS) in relation to the date on the certificate (commissioning date) and the dates for application of the type approval guidelines (G8 and BWMS Code). It is therefore important for shipowners:

1. To keep contract (order) and delivery note of the BWMS onboard
2. To keep this circular on board, in case a question is raised during a PSC inspection

- **Resolution MEPC.296(72) and MEPC.300(72) – Introduction of Ballast Water Management Systems (BWMS) Code**

No substantial change in technical contents compared to the ‘2016 Guidelines for Approval of Ballast Water Management Systems (G8)’ (MEPC.279(70)), just the transition from ‘guidelines’ to a mandatory code. We will advise the details of this in a separate Class News.

- **BWM.2/Circ.33/Rev.1 – Revised guidance on scaling of ballast water management systems**

This revision substantially impacts type approval work, as it now requires identifying the most vulnerable model in undertaking the scale model test.

- **BWM.2/Circ.43/Rev.1 – Revised Guidance for Administrations on the type approval process for ballast water management systems**

The circular was updated due to the introduction of the BWMS Code.



Further information on Class News:

Contact your local Lloyd's Register office or
statutorysupport@lr.org

Read more Class News here
<https://info.lr.org/classnews>

Sign up for Class News email bulletins here
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February 2020

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