



APPLICATION OF MARPOL ANNEX II TO OFFSHORE SUPPORT VESSELS

Notice to all OSV owners, operators, masters, managers, agents, marine surveyors

Summary

This Marine Guidance Note (MGN) sets out the amendments to the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex II and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) which come into force on 1 January 2021 and what they mean for existing offshore support vessels (OSVs).

The MGN explains the provision of a transition period from 1 January 2021 to 31 December 2021, which will allow for a transition to new carriage requirements for OSVs by 1 January 2022 and sets out the requirements for OSVs after this transition period has ended.

1. Introduction

- 1.1 This Marine Guidance Note (MGN) sets out the upcoming amendments to MARPOL Annex II (control of pollution by noxious liquid substances in bulk) and the IBC Code. It explains how this will impact on vessels operating under the Guidelines for the Transport and Handling of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels ("OSV Guidelines") and the Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels ("OSV Chemical Code"), and provides guidance to owners and operators of existing OSVs, certified in accordance with the OSV Guidelines, on how they can comply with these amended requirements during the transitional period outlined below, and after 31 December 2021.
- 1.2 The OSV Guidelines were adopted by the International Maritime Organization (IMO) under Resolution A.673(16) (the OSV Guidelines are referred to in this MGN as "A.673(16)") and the OSV Chemical Code was adopted by the IMO under Resolution A.1122(30) (the OSV Chemical Code is referred to in this MGN as "A.1122(30)"). IMO Resolution A.1122(30) supersedes, but does not revoke, Resolution A.673(16). Neither Resolution contains a mandatory requirement under MARPOL; they are guidelines referred to in regulation 11.2 of Annex II (see 2.2 below).



1.3 This MGN provides a guide to the current situation and transitional period. The effect of the upcoming amendments will vary from ship to ship and owners/operators should discuss their individual needs with their Class Society.

1.4 Marine Information Note MIN 651 provides further information on the detail of the amendments to MARPOL Annex II and the IBC Code which will come into force on 1st January 2021.

2. Background

2.1 All ships carrying hazardous and noxious liquid chemicals in bulk are subject to the Merchant Shipping (Prevention of Pollution from Noxious Liquid Substances in Bulk) Regulations 2018 (S.I. 2018/68). These Regulations give effect to Annex II of MARPOL.

2.2 Regulation 11.2 of Annex II requires parties to establish appropriate measures in respect of ships other than chemical tankers and liquefied gas carriers which are certified to carry the noxious liquid substances in bulk set out in chapter 17 of the IBC Code, based on IMO guidelines. These guidelines include alternatives to the standards in the IBC Code for OSVs which carry certain hazardous and noxious liquid substances in bulk, and so OSVs will accordingly satisfy the carriage requirements under Chapter VII of the Annex to the International Convention for the Safety of Life at Sea, 1974 (SOLAS) and MARPOL, provided that they meet the equivalent requirements of:

.1 for OSVs, the keels of which were laid or which were at a similar stage of construction, on or after 19 April 1990 and before 1 July 2018, the OSV Guidelines, as amended;

.2 for OSVs, the keels of which were laid or which were at a similar stage of construction, on or after 1 July 2018, the OSV Chemical Code.

2.3 Forthcoming amendments to the IBC Code (in IMO Resolution MEPC.318(74), that will enter into force both internationally and in the UK on 1 January 2021, will impose revised, and in many cases, stricter carriage requirements for products listed in Chapter 17 of the IBC Code and the latest edition of the MEPC.2/Circular (provisional categorization of liquid substances in accordance with MARPOL Annex II). These revised carriage requirements augment existing measures to prevent pollution of the marine environment with measures aimed at safeguarding life, health and material values. Consequently, many products previously assigned only with a pollution hazard (P), will now also be assigned with a safety hazard (S), and in some cases will also be categorised as toxic products. Operators should also be aware that some product names have changed.

2.4 The forthcoming amendments to the IBC Code will result in many of the products currently listed in Appendix 1 (Table of Permitted Cargoes) to A.673(16) having upgraded carriage requirements. Consequently, existing OSVs complying with the requirements of A.673(16) would no longer be able to load and carry many of the products currently listed in Appendix 1 of A.673(16), but instead only products based on the following criteria:

.1 products which for safety reasons may be assigned for carriage on a type 3 ship as defined in the IBC Code and which are not required to meet the requirements for toxic products in section 15.12 of that Code,

.2 noxious liquid substances which would be permitted for carriage on a type 3 ship;

.3 flammable liquids.

2.5 For OSVs intending to carry a broader range of the products listed in Chapter 17 of the IBC Code or the latest edition of the MEPC.2/Circular from 1 January 2021 onwards, full



compliance with the IBC Code, or alternatively full compliance with the OSV Chemical Code, would be required. Further explanation and guidance for the carriage of products on existing OSVs follows below and in Annex I of this document.

- 2.6 The forthcoming amendments to the IBC Code also introduce product entries in Chapter 17 for offshore contaminated bulk liquids. Further explanation and guidance for existing OSVs backloading contaminated bulk liquid follows below and in Annex II of this document.
- 2.7 It is reiterated that for all OSVs, regardless of their date of build, the discharge of tank washings or residues containing noxious liquid substances (NLS) or residues or mixtures containing such substances must be to an offshore installation or to a shore reception facility.

3. Guidance and Transitional Arrangements

- 3.1 The United Kingdom recognises that the coming into force of the amendments to MARPOL Annex II and the IBC Code on 1 January 2021 poses an urgent and potentially complex challenge for existing A.673(16) OSVs to comply with the revised carriage requirements in Chapter 17 of the IBC Code. This means that it may also be difficult for OSVs to comply with the higher standard in A.1122(30), which contains the OSV Chemical Code.
- 3.2 The United Kingdom has therefore agreed to permit existing OSVs complying with A.673(16) to continue to operate in UK waters, subject to the Certificate of Fitness ("CoF") remaining valid and carrying only products listed in Appendix 1 of A.673(16), until 31 December 2021. Such OSVs may continue to carry only those products that they are already certified to carry, no additional products may be added during this time.
- 3.3 During this transitional period, which runs from 1 January 2021 to 31 December 2021, owners and operators of existing OSVs have the opportunity to transition to the requirements of A.1122(30) in order to carry the broader range and quantity of chemical products as permitted under A.1122(30), or to continue to operate under A.673(16) and carry only those products that are permitted under A.673(16).
- 3.4 If during this transitional period a renewal survey is required, then the shipowner will need to decide whether to continue to operate as an A.673(16) vessel or to comply with A.1122(30) in full. If the OSV is to continue to operate as an A.673(16) vessel on or after 1 January 2022, then the product carriage requirements in Annex I of this guidance will apply and it should be noted that the list of products that can be carried by the vessel may be reduced accordingly.
- 3.5 Existing OSVs complying with A.673(16) will already be familiar with MGN 283 - Guidance on the Back Loading of Contaminated Bulk Liquids from Offshore Installations to Offshore Supply/Support Vessels. Additional information regarding the carriage of contaminated bulk liquids and the generation of Hydrogen Sulphide (H₂S) is contained in Chapter 16 of A.1122(30), which has been developed from, and builds on, MGN 283. During the transitional period, all existing OSVs complying with A.673(16) should comply with MGN 283 or Chapter 16 of A.1122(30) when backloading contaminated bulk liquids. Further, it is recommended that either fixed or portable H₂S and Lower Explosive Limit (LEL) detection equipment is available onboard the vessel when backloading contaminated bulk liquids. See Annex II below for further information on contaminated bulk liquids.
- 3.6 The transitional period is a delay to the implementation of the IBC Code amendments it is not a permanent exemption. The transition period will end on 31 December 2021. From 1 January 2022 onwards, OSVs must comply fully with A.1122(30) or continue to comply with A.673(16) but be restricted to the carriage of products listed in Annex 1 of this MGN. The requirements of Chapter 16 of A.1122(30) will apply in full for all OSVs (A.673(16) and A.1122(30)) carrying offshore contaminated bulk liquids from 1 January 2022 onwards.



- 3.7 The transition period applies only to the delayed implementation of the above referenced amendments to MARPOL Annex II and the IBC Code. All other relevant regulations and requirements continue to apply.
- 3.8 The transitional arrangements would apply to OSVs operating in UK waters. If the vessel is to operate in other waters outside the UK, then the owner/operator of the vessel is advised to contact the relevant Administration to discuss its requirements accordingly.
- 3.9 Owners/operators of OSVs should discuss the specific requirements for their vessels with their Class Society in the first instance.

4. Basis for the transitional period

- 4.1 MARPOL Annex II sets out a number of circumstances in which exemptions from aspects of the requirements of the Annex may be permitted. Regulation 4.1 makes provision for Administrations to modify or delay, for a specified period, the application of an amendment where amendments to carriage requirements are due to the upgrading of the categorisation of a substance. The IBC Code is a mandatory code under Annex II and regulation 4.1.1 of Annex II provides that modification or delay is permitted where amendments to the IBC Code involve changes to the structure or equipment and fittings due to the upgrading of the carriage requirements for certain substances. In accordance with regulation 4.1.1 an Administration may modify or delay the application of the amendment if its immediate application is considered impracticable or unreasonable. This delay is only applicable to vessels constructed before the date on which the amendment entered into force. In the case of the amendments outlined in this MGN, the entering into force date is 1 January 2021.

5. Requirements for the Training of Personnel

- 5.1 Paragraph 15.3 of A.1122(30) requires that all personnel should be adequately trained in the use of protective equipment and have basic training in the procedures appropriate to their duties necessary under emergency conditions. In addition, personnel involved in NLS bulk cargo operations should be adequately trained in handling procedures commensurate with their responsibilities.
- 5.2 Officers should be trained in emergency procedures to deal with conditions of leakage, spillage or fire involving the cargo and a sufficient number of them should be instructed and trained in essential first aid for cargoes carried, based on the guidelines developed by the Organization.
- 5.3 Therefore, it should be expected that personnel on existing OSVs will have equal requirements for training as personnel on board an OSV certified to comply with the OSV Chemical Code.
- 5.4 However, presently there are no specific provisions adopted under the auspices of the IMO for such training for the crew on an OSV. The training most relevant is directly referring to the training for the crew on a chemical tanker. Therefore, it is recommended that owner/operators of existing A.673(16) and A.1122(30) OSVs consider appropriate guidance and training for their crews so they fully understand the hazards when loading and carrying products listed in Annex I and Chapter 17 and 18 of the IBC Code, and the MEPC.2/Circ.



More Information

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Annex I

Carriage of products listed in Appendix I of A.673(16) on existing OSVs following the amendment of the IBC Code (coming into force on 1st January 2021)

1. Products with no substantial changes in carriage requirements

- Oil based mud containing mixtures of products listed in Chapter 17 and 18 of the IBC Code and permitted to be carried under paragraph 1.2 of these Guidelines
- Water based mud containing mixtures of products listed in Chapter 17 and 18 of the IBC Code and permitted to be carried under paragraph 1.2 of these Guidelines
- Acetic acid
- Ethyl Alcohol
- Triethylene Glycol
- Potassium Chloride Solution
- Potassium Chloride Solutions (less than 26%)
- Sodium chloride solution
- Noxious liquid, NF, (7) n.o.s. (trade name, contains) ST3, Cat. Y
- Noxious liquid, F, (8) n.o.s. (trade name, contains) ST3, Cat. Y
- Noxious liquid, NF, (9) n.o.s. (trade name, contains) ST3, Cat. Z
- Noxious liquid, F, (10) n.o.s. (trade name .., contains) ST3, Cat. Z
- Noxious liquid, (11) n.o.s. (trade name, contains) Cat. Z
- Non-noxious liquid, (12) n.o.s. (trade name, contains) Cat. OS
- Liquid carbon dioxide
- Liquid nitrogen

2. Selected offshore related brine, mud and glycol

The following products are assigned with a safety hazard (S). However, experience indicates that the cargo tanks and connected cargo transfer system which are subject to the waiver for "pollution hazard only substances having a flash point exceeding 60°C" in A.673(16) i.e. 3.1.10, 3.2.4 and 3.4.6 may be considered as adequate for these substances. Therefore, these products may continue to be carried in such cargo tanks.

- Drilling brines (containing calcium bromide)
- Calcium chloride solution (less than 35%)
- Calcium nitrate/Magnesium nitrate/Potassium chloride solution
- Calcium Nitrate Solution (50% or less)
- Cesium formate solution
- Potassium Formate Solutions
- Ethylene Glycol

3. Please note that a suitably marked decontamination shower and eyewash shall be available on deck in a convenient location, as required in paragraph 5.1 in Resolution A.673(16) (and paragraph 14.4.2 in A.1122(30)).



4. Ship type 2 products and toxic

Existing OSVs having a CoF issued under the provisions of A.673(16), may be certified to carry Ship type 2 products and the toxic products which are currently listed in Appendix I of A.673(16), based on the transitional arrangements above.

5. The vessel shall comply with the summary of minimum requirements for the product as listed in chapter 17 of the IBC Code (as amended), with the following modifications:

- a) the requirements for ship survival capability and location of cargo tanks for a type 2 ship in the IBC Code, can be replaced by Chapter 2 - Stability and cargo tank location in A.673(16),
- b) inerting of cargo tanks which is carrying products with a flashpoint not exceeding 60C° is required, and
- c) the requirements described in 15.12.2 in the IBC Code regarding a connection for a vapour-return line to shore may not be fulfilled.

6. This is applicable for the following Ship type 2 products:

- Drilling brine (containing zinc chloride)
- Sulphuric acid
- Xylene

and the following toxic products:

- Ethylene Glycol Monoalkyl Ether
- Formic Acid (85% or less acid)
- Formic Acid (over 85%)
- Hydrochloric acid
- Methyl Alcohol
- Sodium Silicate Solution
- Sulphuric acid [which is also Ship Type 2]
- Toluene

7. And the following contaminated backload bulk liquids (which do not appear in Appendix 1 of A.673(16), however they are added here to be consistent with Annex II of this MGN, the amendments to the IBC Code and current OSV operational practices)

- Offshore contaminated bulk Liquid P (o)
- Offshore contaminated bulk Liquid Treated (containing less than 0.8% of an H2S Scavenger) (o)

8. Cargo tank vent systems

For OSVs not complying with A.1122(30), either after the renewal of their CoF or after 1 January 2022, but continuing to comply with A.673(16), it should be noted that products listed in this



Annex which require controlled venting arrangements may continue to be carried on such vessels subject to them complying with paragraph 3.4.4 and 3.6.2 of A.673(16) for integral or independent tanks with the set point of the pressure side of the P/V valves set at a minimum 0.6 bar gauge (consistent with paragraph 4.2.7 of A.1122(30)). For existing A.673(16) vessels that cannot comply with this, alternative arrangements may be considered and should be discussed with the vessel's Class Society prior to the end of the transitional period outlined above.

9. Cargo tank gauging systems

For OSVs not complying with A.1122(30), either after the renewal of their CoF or after 1 January 2022, but continuing to comply with A.673(16), consideration should be given to the carriage of products listed in this Annex which require restricted or closed gauging arrangements and whether modifications to current cargo tank gauging systems are required. It should also be noted that existing A.673(16) vessels might have alternative arrangements for high-level alarms agreed under paragraph 3.13 of A.673(16) for which cargo tank gauging systems were taken into consideration. Individual arrangements should be considered and discussed with the vessel's Class Society prior to the end of the transitional period outlined above.

Annex II

Carriage of offshore contaminated bulk liquid on existing OSVs having a certificate issued on the basis of A.673(16) following the amendment of the IBC Code (coming into force on 1st January 2021)

1. During the transitional period, all A.673(16) OSVs carrying offshore contaminated bulk liquids should comply with either MGN 283 or Chapter 16 in the A.1122(30). The Guidelines for Offshore Marine Operations (GOMO) also provide information on the carriage of contaminated bulk liquids which may be of use to operators. After the transitional period, the full requirements of A.1122(30) Chapter 16 will apply to all OSVs carrying contaminated bulk liquids.
2. OSVs having a CoF issued under the provisions of the A.673(16), may be certified to carry the products "Offshore contaminated bulk liquid P (o)" and "Offshore contaminated bulk Liquid Treated (containing less than 0.8% of an H₂S Scavenger) (o)" only, provided that they fulfil the requirements for relevant entry, indicated below.
3. OSVs having a CoF issued complying with the provisions of the A.1122(30) Code, may be certified to carry the products "Offshore contaminated bulk Liquid P (o)", "Offshore contaminated bulk Liquid Treated (containing less than 0.8% of an H₂S Scavenger) (o)" and "Offshore contaminated bulk Liquid S (o)".



4. A.673(16) vessels should comply with the summary of minimum requirements for the product as listed in chapter 17 of the IBC Code (as amended). However, the requirements for ship survival capability and location of cargo tanks for a Ship Type 2 in the IBC Code, may be replaced by Chapter 2 - Stability and cargo tank location in A.673(16).

5. The Master of the OSV should not accept loading of any contaminated bulk liquid which is not properly documented in accordance with MGN 283 or Chapter 16.3 of A.1122(30).

6. “Offshore contaminated bulk Liquid P (o)”

The shipper and/or the owner of the cargo should ensure the master of the OSV that this entry can be used by confirming that the following are fulfilled:

- is pollutant only and will not present any safety hazards or where the pre-backloading tests do not indicate any safety hazards (the backload may contain components with safety hazards, as long as they are so diluted that the final mixture presents no safety hazard);
- has a flashpoint greater than 60°C; or
- will not have the potential to become more hazardous during transport.

This shall be confirmed by the analysis form and the conclusions of the test result in MGN 283(M) Appendix II or paragraph 16.3.2.15 of A.1122(30).

Offshore contaminated bulk Liquid P (o)

d	e	f	g	h	i'	i''	i'''	j	k	l	n	O
P	2	Open	2G	No	-	-	Yes	O	No	AC	No	15.19.6

7. “Offshore contaminated bulk Liquid Treated (containing less than 0.8% of an H₂S Scavenger) (o)”

The shipper and/or the owner of the cargo should ensure the master that this entry can be used by confirming that the following are fulfilled:

- has been treated to remove or prevent breakout of H₂S;
- is considered as pollutant only and does not present any safety hazards or where the pre-backloading tests do not indicate any safety hazards (the backload may contain components with safety hazards, as long as they are so diluted that the final mixture presents no safety hazard);
- has a flashpoint greater than 60°C; or
- will not have the potential to become more hazardous during transport.

This shall be confirmed by the Analysis form and the conclusions of the test result in MGN 283(M) Appendix II or paragraph 16.3.2.15 of A.1122(30).



Offshore contaminated bulk Liquid Treated (containing less than 0.8% of an H₂S Scavenger)
(o)

d	e	f	g	h	i'	i''	i'''	j	k	l	n	O
P	2	Cont	2G	No	-	-	Yes	C	No	AC	No	15.15, 15.19.6

However, it should be noted that the treatment may not be 100% effective in controlling the formation of H₂S for a long period.

8. When loading and carrying any Offshore contaminated bulk Liquid it is recommended that H₂S and LEL detection equipment is available onboard the vessel either fixed or portable to monitor the atmosphere in the tank, in addition personnel working on deck should be provided with portable H₂S monitoring equipment.

H₂S precautions:

- Contaminated bulk liquid should be discharged from the vessel as soon as possible, preferably at the first port of call.
- The need to clean the dirty tanks should be reviewed on each voyage to minimize the risk of biological activity and H₂S build up from any residue.
- Prior to backloading to a dirty tank, the potential for biological activity resulting in H₂S in the dead volume and sludge should be considered. The offshore analysis of the previous contaminated bulk liquid should be compared with analyses of a sample representative for the liquid when unloading.
- If H₂S or flammable vapour is detected during loading of contaminated bulk liquids the transfer should be stopped immediately.
- Vessel-specific procedures for measures to be taken when H₂S is detected during loading, transport, discharge and cleaning of contaminated bulk liquids should be included in the vessel's safety management system.

9. Additional information on the hazards of H₂S can be found in A.1122(30) Chapter 16.

