Subject

Summary of the outcomes of MEPC 82

ClassNK
Technical Information

No. TEC-1343
Date 7 January 2025

To whom it may concern

The eighty-second session of the International Maritime Organization (IMO) Marine Environment Protection Committee (MEPC 82) was held from 30 September to 4 October 2024. A summary of the discussions and the decisions taken at MEPC 82 is provided as below for your information.

1. Greenhouse Gases (GHG)

Reduction of greenhouse gas (GHG) emissions to address global warming is a universal challenge, and the measures to reduce GHG emissions from international shipping have been deliberated at IMO. Such measures introduced at the IMO so far include the regulation of Energy Efficiency Design/Existing Ship Index (EEDI/EEXI), retaining of the Ship Energy Efficiency Management Plan (SEEMP) onboard, and reporting annual fuel oil consumption data in the IMO Data Collection System (IMO DCS) and its Carbon Intensity Indicator (CII) rating. At MEPC 80 held in July 2023, the 2023 IMO Strategy on Reduction of GHG Emissions from Ships (2023 IMO GHG Strategy) was adopted, establishing the IMO's reinforced levels of ambition (see table below) and proposed measures for GHG reduction, to lead further discussions with an aim to accomplish the goals of GHG reduction from international shipping.

Target year	Levels of ambition and indicative checkpoints (as of 2023)
2030	・ To reduce CO2 emissions per transport work by at least 40% (compared to 2008) ・ To reduce total annual GHG emissions by at least 20% (striving for 30%) (compared to 2008) ・ Uptake of zero GHG emission fuels etc. to represent at least 5% of the energy used (striving for 10%)
2040	・ To reduce total annual GHG emissions by at least 70% (striving for 80%) (compared to 2008)
2050	・ To reach net-zero GHG emissions by or around 2050 at the latest

At this session, MEPC 82 held continued discussions on developing mid-term measures for reduction of GHG along with various topics such as the review of short-term measures (namely EEXI and CII), further operationalization of the Guidelines for Life Cycle GHG Intensity of Marine Fuels, etc.

(To be continued)

(1) Mid-term measures for reduction of GHG

2023 IMO GHG Strategy sets out that, as mid-term measures for achieving the GHG reduction targets for international shipping, a basket of candidate mid-term measures should be developed comprising both a "technical element", which is a goal-based marine fuel standard regulating the phased reduction of the marine fuel's GHG emission per unit energy (i.e. GHG intensity), and an "economic element", which is based on a maritime GHG emission pricing mechanism.

The following work plan was previously agreed at MEPC 80 for developing mid-term measures, aiming for entry into force by 2027:

Timeline	Work Item
2023-2024	Conduct a comprehensive impact assessment (CIA) to assess potential impacts towards various countries and international shipping posed by combinations of respective basket of measures, and finalize the mid-term measures
2025	Approval and adoption of the mid-term measures
2027	Entry into force of the mid-term measures

At the previous session, the "IMO net-zero framework" was agreed, illustrating an outline of regulatory amendments to be considered, and the IMO Member States and international organizations were then invited to continue with discussions towards finalizing mid-term measures on the basis of the framework.

Furthermore, the results from the CIA, which was conducted by organizations such as UNCTAD etc., were submitted as reports to this session in order to take into account the corresponding results in developing the proposed basket of candidate measures.

At this session, the various points of discussion regarding mid-term measures were consolidated as text options for relevant regulations; however, the Committee was not able to finalize the draft mid-term measures. Many unresolved topics still remain, such as calculating methods of GHG emissions on the life cycle basis, the level of GHG intensity and pricing regulations to be set out, and management and distribution of revenues collected through the pricing mechanism. Further discussions will continue with the aim to adopt mid-term measures within 2027.

Regarding the results from the CIA, a number of delegations expressed concerns that the impacts to States from transportation cost perspectives, in particular on essential food commodities, have not been properly assessed. Thus, it was agreed to carry out further work on assessing consequential impacts in terms of food security.

(To be continued)

(2) Review of short-term measures for reduction of GHG

MARPOL Convention Annex VI prescribes that a review of the EEXI (Energy Efficiency Existing Ship Index) and CII rating regulations, introduced by IMO as short-term measures, shall be completed by 1 January 2026 to assess their effectiveness.

In addition, it was agreed to investigate the effectiveness of the CII rating regulations in terms of a number of proposals submitted by Member States and international organizations, addressing concerns such as ship sizes and operational conditions both positively and/or negatively affecting the CII rating.

At this session, initial analysis on the available data and proposals from Member States and international organizations was conducted in order to proceed with the review of the short-term measures. This session also developed a consolidated list of challenges and gaps in the short-term measures, which will be used as the base document for subsequent discussions at the relevant Correspondence Group and Intersessional Working Group.

(3) Operationalization of the Guidelines on Life Cycle GHG Intensity of Marine Fuels

For low/zero-carbon fuels, such as hydrogen, ammonia and biomass-based fuels which are expected to become more widely used in the future to decarbonize ships, it has been recognized that GHG emissions during manufacturing and distribution processes of these fuels should be taken into account. It is also recognized that GHG other than CO2, such as methane (CH4) and nitrous oxide (N2O), may cause significant impact on global warming.

At the previous session, amendments were made to the LCA Guidelines adopted at MEPC 80 and were adopted as the 2024 LCA Guidelines, and it was also agreed that further investigations will be pursued by the Working Group on the Life Cycle GHG Intensity of Marine Fuels (GESAMP-LCA WG) newly established under GESAMP so as to seek their scientific review and advice.

At this session, Member States and international organizations were invited to submit proposals for default emission factors in order to allow the GESAMP-LCA WG to review default emission factors for each fuel. Also, Member States and international organizations were further invited to propose a certification framework for sustainable fuels to MEPC for consideration by GESAMP-LCA WG in developing a fuel certification scheme.

(4) Guidance for collecting data in IMO DCS

At the previous session, the amendments to MARPOL Annex VI Appendix IX were adopted, including the amendments and additions to the items required to be reported in the IMO DCS, such as total fuel oil consumption per combustion systems and actual transport work. These amendments will enter into force on 1 August 2025, but the Parties are further invited to consider early application of the amendments from 1 January 2025

(To be continued)

However, having noted that the data reported to IMO is collected annually per calendar year, it was pointed out that the data collected before and after the date of entry into force may contain data in an inconsistent format.

At this session, in order to allow data reporting in a consistent format throughout the year 2025, a guidance was approved, which essentially allows that data collection according to the amended data format may be commenced from 1 January 2026 for existing ships. It was also confirmed that the guidance does not preclude a voluntary early application of the amendments. Also refer to ClassNK Technical Information TEC-1339 for detailed application schedule and procedures etc.
(Refer to MEPC.1/Circ.913 as attachment 4)

(5) Initiation of the Fifth IMO GHG Study

IMO periodically conducts a study, providing estimates such as GHG emissions from international shipping. The most recent study was the Fourth IMO GHG Study published in 2020, which presents the emission statistics between 2012 and 2018 and also GHG emission per transport work. It is to be noted that the GHG emission considered in the Study is only associated with onboard (Tank-to-Wake) emissions.

The 17th session of Intersessional Working Group on Reduction of GHG (ISWG-GHG 17), held immediately before this MEPC session, initiated the consideration of Fifth IMO GHG Study by discussing its Terms of Reference. During the discussions, some comments were made, such as: not only the GHG emissions in 2008, which essentially is considered as the baseline for emissions from international shipping, but also carbon concentration in fuels should be determined; and GHG emissions should be calculated on the Well-to-Wake basis.

It was then agreed at this session to continue with detailed discussions on the Terms of Reference of the Fifth IMO GHG Study at the next session, taking into account the views shared and comments raised at this session.

2. BWM Convention

(1) Modifications to Ballast Water Management Systems (BWMS) with existing type approval

There have been cases reported, where type-approved BWMS are modified or have their model changed after their installation, such as when the system is found no longer compliant with the Regulation D-2 of the Ballast Water Management (BWM) Convention due to various consequences. Such modifications and changes comprise not only removal of filters but also changes made in UV transmittance system and dosage of active substances. Given that varying approaches are being taken by Member States on whether new type approval should be necessary after such modifications or changes, the industry suggested aligning the views in this regard.

(To be continued)

At this session, the amended Guidance for Administrations on the Type Approval Process for Ballast Water Management Systems (MEPC.2/Circ.43/Rev.2) was approved, listing detailed examples of BWMS components and providing guidance on when a new type approval should be necessary or not.
(Refer to BWM.2/Circ.43/Rev.2 as attachment 2)

(2) Review of BWM Convention

The Correspondence Group on Review of the BWM Convention reported to this session the progress of its work being undertaken since MEPC 80 and held further in-person discussions. The Correspondence Group will continue its work, which will further be reported to MEPC 83.

When BWM Convention entered into force in 2017, it was agreed to monitor the application and to review the effectiveness of the Convention through the experience building phase (EBP), and MEPC 80 approved the Convention Review Plan (CRP) which comprises the list of issues that need to be finalized. MEPC 81 further endorsed the list identifying items that need to be amended within the BWM Convention, BWMS Code and relevant guidelines and guidance, based on the review undertaken by the Correspondence Group.

At this session, the following topics were discussed with an aim to establish common understanding to facilitate further work by the Correspondence Group:

- BWMS maintenance procedures;
- Standardization of BWMS data logs and export files;
- Relationship between BWMS testing conditions and treatment rated capacity (TRC);
- BWMS test duration;
- Test water conditions; and
- Type of analysis of ballast water discharges during surveys.

It was also concluded that the Correspondence Group will not proceed with the consideration of the proposal for regulating disinfection by-products (DBPs) in discharges from BWMS that make uses of active substances, given that the matter is not mature enough for consideration.

3. Others

(1) Ship Recycling Convention

To conduct dismantling of ships in a safe manner and under appropriate management without environmental pollution, the Ship Recycling Convention (formally "the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009", a.k.a. "the Hong Kong Convention") will enter into force on 26 June 2025, where the Convention will apply to all ships of 500 GT or over flying the flag of a ratified Party (see ClassNK Technical Information TEC-1311). On the other hand, the Basel Convention which entered into force in 1992 (and its 1995 amendment) prohibits all transboundary movements to particular States of hazardous wastes covered by the Convention that are intended for final disposal.

(To be continued)

At the previous session, concerns were raised where ships compliant to the Ship Recycling Convention may not proceed with the final voyage due to the Basel Convention; therefore, the interplay between the Conventions was further investigated.

At this session, the provisional IMO guidance was approved, clarifying that States that are Parties to both the Ship Recycling Convention and the Basel Convention should consider notifying the Secretariat of the Basel Convention so as to express that the States understand that the provisions of the Basel Convention should not affect the transboundary movements that take place pursuant to the Ship Recycling Convention. Member States and IMO Secretariat were also encouraged to continue sharing relevant information towards the implementation of the Ship Recycling Convention.
(Refer to HKSRC.2/Circ.1 as attachment 3)

4. Amendments to mandatory instruments
MEPC 82 adopted amendments to mandatory instruments as follows:

(1) Addition of Nitrogen Oxides (NOx), Sulphur Oxides (SOx) and Particulate Matter (PM) Emission Control Areas (ECA)
Amendments to MARPOL Annex VI were adopted, designating Canadian Arctic area and Norwegian Sea area as ECA and also including detailed dates relevant to the ship's construction into the Form of the Supplement to IAPP Certificate.
(Refer to Res. MEPC.392(82) as attachment 1 and attachment 5)

Entry into force: 1 March 2026

The sulphur content in fuel oil used for ships operating in these ECA will be limited to 0.10% from 1 March 2027. Furthermore, the NOx Tier III emission limit will be applied to the following ships operating in these ECA:

Application of NOx Tier III Limitations	
Canadian Arctic ECA	・Ships the keels of which are laid or that are at a similar stage of construction on or after 1 January 2025
Norwegian Sea ECA	・Ships for which the building contract is placed on or after 1 March 2026 ・In the absence of a building contract, ships the keels of which are laid or which are at a similar stage of construction on or after 1 September 2026 ・Ships delivered on or after 1 March 2030

A summary of the outcomes of MEPC 82 is also available on the IMO website.
https://www.imo.org/en/MediaCentre/MeetingSummaries/Pages/MEPC-default.aspx

(To be continued)

For any questions about the above, please contact:

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Attachment:

1. Res. MEPC.392(82): Amendments to MARPOL Annex VI (Designation of the Canadian Arctic and the Norwegian Sea as Emission Control Areas for Nitrogen Oxides, Sulphur Oxides and Particulate Matter, as Appropriate)
2. BWM.2/Circ.43/Rev.2: 2024 Guidance for Administrations on the Type Approval Process for Ballast Water Management Systems
3. HKSRC.2/Circ.1: Provisional Guidance on the Implementation of the Hong Kong and Basel Conventions with Respect to the Transboundary Movement of Ships Intended for Recycling
4. MEPC.1/Circ.913: Guidance on the Application of the Amendments to Appendix IX of MARPOL Annex VI on Inclusion of Data on Transport Work and Enhanced Granularity in the IMO Ship Fuel Consumption Database (IMO DCS) as Adopted by Resolution MEPC.385(81)
5. Illustrations of the Canadian Arctic and the Norwegian Sea ECA

ANNEX 1

RESOLUTION MEPC.392(82)
(adopted on 4 October 2024)

AMENDMENTS TO THE ANNEX OF THE PROTOCOL OF 1997 TO AMEND THE INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973, AS MODIFIED BY THE PROTOCOL OF 1978 RELATING THERETO

Amendments to MARPOL Annex VI

(Designation of the Canadian Arctic and the Norwegian Sea as Emission Control Areas for Nitrogen Oxides, Sulphur Oxides and Particulate Matter, as appropriate)

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

RECALLING Article 38(a) of the Convention on the International Maritime Organization concerning the functions of the Marine Environment Protection Committee conferred upon it by international conventions for the prevention and control of marine pollution from ships,

RECALLING ALSO article 16 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto (MARPOL), which specifies the amendment procedure and confers upon the appropriate body of the Organization the function of considering amendments thereto for adoption by the Parties,

HAVING CONSIDERED, at its eighty-second session, proposed amendments to MARPOL Annex VI concerning the designation of the Canadian Arctic and the Norwegian Sea as Emission Control Areas for Nitrogen Oxides, Sulphur Oxides and Particulate Matter, as appropriate, which were circulated in accordance with article 16(2)(a) of MARPOL,

1 ADOPTS, in accordance with article 16(2)(d) of MARPOL, amendments to MARPOL Annex VI, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with articles 16(2)(f)(ii) and (iii) of MARPOL, that the amendments shall be deemed to have been accepted on 1 September 2025 unless prior to that date not less than one third of the Parties or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have communicated to the Organization their objection to the amendments;

3 INVITES the Parties to note that, in accordance with article 16(2)(g)(ii) of MARPOL, the said amendments shall enter into force on 1 March 2026 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of article 16(2)(e) of MARPOL, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to MARPOL;

5 ALSO REQUESTS the Secretary-General to transmit copies of the present resolution and its annex to Members of the Organization which are not Parties to MARPOL.

ANNEX

AMENDMENTS TO MARPOL ANNEX VI

(Designation of the Canadian Arctic and the Norwegian Sea as Emission Control Areas for Nitrogen Oxides, Sulphur Oxides and Particulate Matter, as appropriate)

ANNEX VI

REGULATIONS FOR THE PREVENTION OF AIR POLLUTION FROM SHIPS

Regulation 13
Nitrogen oxides (NO_x)

Tier III

1 A new sub-paragraph .3 is added to regulation 13.5.1.2 as follows:

".3 1 March 2026 and is operating in the Norwegian Sea Emission Control Area. For the Norwegian Sea Emission Control Area, "ship constructed on or after 1 March 2026" means a ship:

.1 for which the building contract is placed on or after 1 March 2026; or

.2 in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 September 2026; or

.3 the delivery of which is on or after 1 March 2030."

2 Between paragraphs 5.1.2 and 5.1.3, the word "when" is added.

3 At the end of regulation 13.5.1.3, "." is replaced with ":" and a new sub-paragraph .1 is added as follows:

".1 that ship is constructed on or after 1 January 2025 and is operating in the Canadian Arctic Emission Control Area."

Emission control area

4 At the end of sub-paragraph.3 of regulation 13.6, the word "and" is deleted and at the end of sub-paragraph .4, "." is replaced with ";".

5 New sub-paragraphs .5 and .6 are added to regulation 13.6 as follows:

".5 the Canadian Arctic Emission Control area, which means the area described by the coordinates provided in appendix VII to this Annex; and

.6 the Norwegian Sea as defined in regulation 13.9.4 of Annex II of the present Convention."

Regulation 14
Sulphur oxides (SO_x) and particulate matter

Requirements within emission control areas

6 At the end of sub-paragraph .4 of regulation 14.3, the word "and" is deleted and, at the end of sub-paragraph .5, "." is replaced by ";".

7 New sub-paragraphs .6 and .7 of regulation 14.3 as follows:

".6 the Canadian Arctic Emission Control area, which means the area described by the coordinates provided in appendix VII to this Annex; and

.7 the Norwegian Sea as defined in regulation 13.9.4 of Annex II of the present Convention."

Appendix I
Form of International Air Pollution Prevention (IAPP) Certificate
(regulation 8)

SUPPLEMENT TO INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE (IAPP CERTIFICATE)

RECORD OF CONSTRUCTION AND EQUIPMENT

7 Section 1.3 of the Supplement to the International Air Pollution Prevention Certificate is replaced by the following:

"1.3 Date of build

1.3.1 Date of building contract *(dd/mm/yyyy)* ……

1.3.2 Date on which keel was laid or ship was at a similar stage of construction *(dd/mm/yyyy)* ……

1.3.3 Date of delivery *(dd/mm/yyyy)* ……..…….**"**

Appendix VII
Emission control areas
(regulations 13.6 and 14.3)

8 Paragraph 1 is replaced by the following:

"1 The boundaries of emission control areas designated under regulations 13.6 and 14.3, other than the Baltic Sea, the North Sea, and the Norwegian Sea areas, are set forth in this appendix."

9 New paragraph 5 is added after paragraph 4 as follows:

"5 The Canadian Arctic area comprises two segments:

.1 starting at the Yukon mainland at 68°54'.00 N, 137°0'.00 W; following the coordinates listed below and ending at the north coast of Hans Island at 80°49'.91 N, 66°27'.40 W, connected by geodesic lines connecting the following coordinates in World Geodetic System 1984 (WGS84) datum:

POINT	LATITUDE	LONGITUDE
1	68°54'.00 N	137°0'.00 W
2	72°56'.58 N	137°0'.00 W
3	73°0'.42 N	136°21'.72 W
4	73°21'.72 N	136°20'.46 W
5	73°56'.34 N	136°57'.60 W
6	74°30'.18 N	137°13'.08 W
7	75°3'.42 N	137°7'.20 W
8	75°49'.26 N	136°32'.04 W
9	76°42'.18 N	136°57'.06 W
10	77°28'.26 N	136°34'.74 W
11	78°7'.26 N	135°28'.50 W
12	78°39'.72 N	133°44'.88 W
13	79°29'.58 N	131°24'.96 W
14	79°53'.16 N	129°32'.22 W
15	80°31'.44 N	127°33'.48 W
16	81°54'.36 N	118°36'.24 W
17	82°16'.32 N	116°28'.98 W
18	82°52'.86 N	115°29'.46 W
19	83°54'.54 N	112°7'.20 W
20	85°46'.14 N	97°16'.86 W
21	86°9'.78 N	89°14'.46 W
22	86°22'.56 N	78°59'.58 W
23	86°19'.18 N	60°10'.17 W
24	85°38'.92 N	58°10'.58 W
25	85°22'.29 N	57°59'.22 W
26	85°12'.04 N	57°54'.68 W
27	84°49'.56 N	57°13'.28 W
28	84°22'.15 N	56°43'.09 W
29	84°17'.32 N	56°35'.78 W
30	84°11'.05 N	56°29'.53 W
31	83°10'.79 N	57°0'.21 W
32	83°4'.29 N	57°27'.78 W
33	83°0'.95 N	57°32'.72 W
34	82°44'.71 N	58°0'.38 W
35	82°42'.57 N	58°6'.78 W
36	82°40'.69 N	58°11'.74 W
37	82°34'.95 N	58°25'.30 W
38	82°31'.25 N	58°38'.56 W
39	82°27'.52 N	58°50'.12 W

POINT	LATITUDE	LONGITUDE
40	82°22'.87 N	59°2'.00 W
41	82°20'.26 N	59°21'.38 W
42	82°18'.54 N	59°32'.25 W
43	82°17'.22 N	59°41'.31 W
44	82°14'.41 N	59°56'.06 W
45	82°12'.06 N	60°2'.23 W
46	81°51'.67 N	62°9'.60 W
47	81°17'.89 N	64°8'.73 W
48	80°50'.48 N	66°15'.33 W
49	80°50'.10 N	66°26'.97 W
50	80°49'.91 N	66°27'.40 W

.2 continuing from the south coast of Hans Island at 80°49'.29 N, 66°27'.04 W, following the coordinates listed below, and ending at the coast of Newfoundland and Labrador at 60°0'.00 N, 64°9'.60 W, connected by geodesic lines connecting the following coordinates in World Geodetic System 1984 (WGS84) datum:

POINT	LATITUDE	LONGITUDE
51	80°49'.29 N	66°27'.04 W
52	80°49'.19 N	66°26'.57 W
53	80°45'.43 N	67°3'.99 W
54	80°26'.16 N	68°14'.39 W
55	80°1'.79 N	68°46'.99 W
56	79°40'.38 N	69°4'.68 W
57	78°48'.09 N	72°52'.36 W
58	78°25'.05 N	73°45'.66 W
59	77°30'.83 N	74°38'.24 W
60	76°43'.47 N	74°56'.49 W
61	75°0'.00 N	73°16'.07 W
62	74°50'.67 N	73°2'.71 W
63	74°44'.20 N	72°52'.86 W
64	74°28'.67 N	71°45'.72 W
65	74°24'.02 N	71°25'.67 W
66	74°12'.42 N	70°33'.06 W
67	74°10'.03 N	70°23'.12 W
68	74°7'.50 N	70°12'.16 W
69	74°6'.15 N	70°6'.69 W
70	74°2'.53 N	69°51'.43 W
71	74°2'.25 N	69°50'.33 W
72	73°57'.54 N	69°31'.02 W
73	73°52'.27 N	69°10'.88 W
74	73°46'.73 N	68°51'.14 W
75	73°46'.17 N	68°48'.81 W

POINT	LATITUDE	LONGITUDE
76	73°41'.77 N	68°29'.65 W
77	73°37'.91 N	68°12'.34 W
78	73°36'.51 N	68°5'.42 W
79	73°31'.14 N	67°15'.52 W
80	73°25'.90 N	66°24'.99 W
81	73°18'.48 N	66°7'.91 W
82	72°50'.89 N	65°7'.52 W
83	72°47'.70 N	65°0'.63 W
84	72°45'.76 N	64°58'.22 W
85	72°43'.78 N	64°54'.27 W
86	72°36'.40 N	64°38'.74 W
87	72°30'.58 N	64°26'.04 W
88	72°24'.89 N	64°13'.11 W
89	72°10'.96 N	63°40'.55 W
90	72°6'.33 N	63°30'.42 W
91	72°1'.65 N	63°20'.73 W
92	71°52'.98 N	63°3'.86 W
93	71°47'.21 N	62°52'.67 W
94	71°44'.71 N	62°49'.41 W
95	71°32'.90 N	62°33'.35 W
96	71°31'.73 N	62°31'.66 W
97	71°29'.39 N	62°28'.99 W
98	71°25'.93 N	62°25'.37 W
99	71°18'.98 N	62°17'.45 W
100	71°12'.10 N	62°8'.98 W
101	70°51'.84 N	61°42'.53 W
102	70°48'.17 N	61°37'.62 W
103	70°35'.55 N	61°20'.28 W
104	70°33'.07 N	61°17'.10 W
105	70°13'.48 N	61°10'.49 W
106	70°8'.83 N	61°8'.67 W
107	70°7'.55 N	61°7'.92 W
108	70°1'.68 N	61°4'.08 W
109	69°55'.82 N	60°59'.85 W
110	69°55'.27 N	60°59'.41 W
111	69°49'.82 N	60°57'.99 W
112	69°29'.41 N	60°51'.36 W
113	69°12'.82 N	60°27'.40 W
114	69°10'.24 N	60°23'.47 W
115	69°6'.79 N	60°18'.33 W
116	69°0'.88 N	60°8'.99 W
117	68°56'.83 N	60°2'.21 W
118	68°38'.02 N	59°14'.43 W
119	68°37'.86 N	59°14'.01 W

POINT	LATITUDE	LONGITUDE
120	68°34'.02 N	59°4'.46 W
121	68°32'.88 N	59°1'.49 W
122	68°25'.25 N	58°42'.06 W
123	68°21'.67 N	58°38'.64 W
124	68°16'.07 N	58°33'.75 W
125	68°7'.40 N	58°26'.93 W
126	68°6'.87 N	58°26'.58 W
127	68°4'.26 N	58°24'.69 W
128	68°1'.89 N	58°23'.15 W
129	67°56'.94 N	58°19'.62 W
130	67°44'.25 N	58°9'.79 W
131	67°39'.77 N	58°6'.05 W
132	67°35'.33 N	58°2'.07 W
133	67°30'.76 N	57°57'.66 W
134	67°29'.16 N	57°56'.00 W
135	67°28'.21 N	57°55'.01 W
136	67°27'.27 N	57°54'.57 W
137	67°21'.52 N	57°52'.35 W
138	66°49'.47 N	57°42'.84 W
139	66°41'.71 N	57°40'.35 W
140	66°37'.88 N	57°39'.45 W
141	66°36'.02 N	57°38'.99 W
142	66°30'.27 N	57°38'.04 W
143	66°24'.50 N	57°37'.56 W
144	66°18'.68 N	57°37'.55 W
145	66°12'.84 N	57°38'.01 W
146	66°3'.50 N	57°39'.45 W
147	65°57'.62 N	57°39'.93 W
148	65°57'.50 N	57°39'.93 W
149	65°51'.75 N	57°40'.44 W
150	65°50'.81 N	57°40'.46 W
151	65°37'.59 N	57°41'.74 W
152	65°34'.74 N	57°42'.18 W
153	65°23'.33 N	57°44'.83 W
154	65°18'.08 N	57°45'.70 W
155	65°14'.52 N	57°44'.99 W
156	65°11'.49 N	57°44'.22 W
157	65°8'.79 N	57°43'.69 W
158	65°6'.04 N	57°43'.95 W
159	64°12'.06 N	57°48'.09 W
160	64°4'.20 N	57°49'.01 W
161	63°57'.36 N	57°53'.40 W
162	63°52'.57 N	57°56'.46 W
163	63°50'.05 N	57°57'.01 W

POINT	LATITUDE	LONGITUDE
164	63°43'.99 N	57°58'.60 W
165	63°37'.16 N	58°1'.00 W
166	63°35'.02 N	58°1'.86 W
167	63°28'.62 N	57°59'.62 W
168	63°22'.86 N	57°57'.29 W
169	62°47'.14 N	57°40'.83 W
170	62°11'.35 N	57°25'.12 W
171	62°3'.47 N	57°22'.15 W
172	62°2'.23 N	57°21'.62 W
173	62°0'.39 N	57°20'.92 W
174	61°24'.74 N	57°16'.16 W
175	61°10'.14 N	57°38'.70 W
176	60°43'.56 N	57°17'.64 W
177	60°15'.36 N	57°4'.56 W
178	60°0'.00 N	56°43'.02 W
179	60°0'.00 N	64°9'.60 W

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BWM.2/Circ.43/Rev.2
24 October 2024

INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATER AND SEDIMENTS, 2004

2024 Guidance for Administrations on the type approval process for ballast water management systems

1 The Marine Environment Protection Committee (MEPC), at its sixty-first session (27 September to 1 October 2010), approved the *Guidance for Administrations on the type approval process for ballast water management systems in accordance with Guidelines (G8)*, developed by the Sub-Committee on Bulk Liquids and Gases (BLG) at its fourteenth session (8 to 12 February 2010), disseminated as BWM.2/Circ.28.

2 MEPC 65 (13 to 17 May 2013) approved amendments to the Guidance, developed by BLG 17 (4 to 8 February 2013), disseminated as BWM.2/Circ.43, superseding BWM.2/Circ.28.

3 MEPC 72 (9 to 13 April 2018) considered and approved a revision of the Guidance in order to reflect the requirements of the *Code for Approval of Ballast Water Management Systems* (resolution MEPC.300(72)).

4 MEPC 82 (30 September to 4 October 2024) considered and approved a revision of the Guidance to support harmonized evaluation by Administrations of modifications to a ballast water management system with existing type approval, as set out in the annex.

5 Member Governments and international organizations are invited to bring the annexed Guidance to the attention of all parties concerned.

6 This circular revokes BWM.2/Circ.28, BWM.2/Circ.43 and BWM.2/Circ.43/Rev.1.

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ANNEX

2024 GUIDANCE FOR ADMINISTRATIONS ON THE TYPE APPROVAL PROCESS FOR BALLAST WATER MANAGEMENT SYSTEMS

1 PURPOSE

1.1 This document provides guidance for Administrations on the procedure for evaluating an application for type approval of a ballast water management system (BWMS), in accordance with the *Code for Approval of Ballast Water Management Systems* (BWMS Code)[1], or evaluating modifications to an existing type approved BWMS that are proposed by the manufacturer. The Guidance can act as an aide-memoire for Administrations and is not intended, in any way, to interfere with the authority of an Administration.

1.2 Modifications to an existing type approved BWMS may be to major components, as defined in the BWMS Code, or to minor components, as defined herein. Examples of major and minor components are provided in the appendix, tables 1 and 3, respectively. This document provides:

.1 information to support a determination of the design and type of component that a BWMS manufacturer is proposing to modify (e.g. major or minor; refer to figure 1); and

.2 procedural guidance to support an evaluation and approval of BWMS modifications.

1.3 For modifications to major components, Administrations should follow the BWMS Code and guidelines developed by the Organization to determine any associated testing requirements (for decision support see examples in table 2 in the appendix).

1.4 There is no requirement for existing BWMS installations with a valid Type Approval Certificate to be retroactively upgraded should a BWMS with an existing type approval obtain approval of modifications.

1.5 A BWMS originally type approved and installed taking into account Guidelines (G8) (i.e. resolutions MEPC.125(53), MEPC.174(58) and MEPC.279(70)), and before entry into effect of the BWMS Code, can undergo modifications to minor components following this guidance and does not require a shipowner or BWMS manufacturer to retroactively apply BWMS Code requirements to that installation.

1.6 This document provides guidance on interpretation of the BWMS Code and does not replace or supersede the requirements of the Code.

1.7 This document is intended to provide guidance to Administrations on the details of the type approval to be reported to the Committee.

[1] References to the BWMS Code are understood to refer to any revisions of the Code that may be in effect and applicable at the time of implementation of this Guidance by an Administration.

2 KEY INSTRUMENTS

In evaluating an application for type approval of a BWMS, or an application from a manufacturer for modification to a BWMS with an existing type approval, the latest version of the following instruments should be consulted:

.1 *International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004* (BWM Convention);

.2 *Procedure for approval of ballast water management systems that make use of Active Substances* (G9) (resolution MEPC.169(57));

.3 *Guidelines for ballast water sampling* (G2) (resolution (MEPC.173(58));

.4 *Code for Approval of Ballast Water Management Systems* (resolution MEPC.300(72)) and *Guidelines for approval of ballast water management systems* (G8) (resolutions MEPC.125(53), MEPC.174(58) and MEPC.279(70)), as may be appropriate;

.5 *Guidance to ensure safe handling and storage of chemicals and preparations used to treat ballast water and the development of safety procedures for risks to the ship's crew resulting from the treatment process* (BWM.2/Circ.20);

.6 *Methodology for information gathering and conduct of work of the GESAMP-BWWG* (BWM.2/Circ.13, as revised); and

.7 other pertinent ballast water management related resolutions, guidance and circulars.

3 RECOMMENDATIONS FOR REQUIREMENTS OF MANUFACTURERS OR THEIR AGENTS

3.1 To facilitate an initial or new type approval of a BWMS, the Administration should ensure that the manufacturers, or their agents have, at a minimum:

.1 been informed if the Administration delegates to, or utilizes the services of, a third-party quality assurance organization (e.g. recognized organization, nominated body, classification society, surveyors, etc.) in some or all of the type approval processes;

.2 understood the steps and requirements of the processes outlined in the instruments listed in section 2 of this Guidance;

.3 a fully working system built that can be used in the type approval process. It should be noted that the construction procedures and materials for the unit tested need to be the same as for the follow-on production units;

.4 undertaken preliminary testing to ensure that their BWMS is viable, will meet the D-2 standard of the BWM Convention, will work on board a ship and has been determined not to pose any unacceptable risk to the environment;

.5 understood the extent of testing that needs to be completed by a recognized testing facility, including toxicity analysis;

.6 provided a description of the preliminary test to the Administration that should at least include the following:

.1 the test set-up, including sampling points;

.2 responsible persons/organizations for all or portions of the preliminary testing;

.3 possible Quality Management Plan (QMP) of the testing facility;

.4 testing laboratories that will be used;

.5 Quality Assurance Project Plan (QAPP) for the preliminary test; and

.6 provision for survey of the test facility, if required;

.7 provided a detailed report of the preliminary test results including, at least:

.1 toxicity data;

.2 Active Substances if relevant; and

.3 any Other Chemicals generated during the process;

.8 an understanding of whether the system under consideration uses an Active Substance as defined in the BWM Convention. If it utilizes an Active Substance, the system will require additional approval under Procedure (G9), whilst the systems not using an Active Substance only need approval under the BWMS Code;

.9 a contractual agreement to undertake the shipboard testing needed under the BWMS Code with the owner of a suitable ship;

.10 arranged for a trained person from the land-based testing facility to operate the equipment being type approved and ensure that for the shipboard test the ship's crew is familiar with the equipment and sufficiently trained to operate the equipment;

.11 consulted with the classification society that the ship undertaking the shipboard testing is being registered, where necessary, and obtained approval for installation of the BWMS;

.12 demonstrated, by using mathematical modelling and/or calculations or by full-scale shipboard testing, that any up or down scaling will not affect the ultimate functioning and effectiveness on board a ship of the type and size for which the equipment will be certified. In doing so, the manufacturers should take into account all relevant guidelines developed by the Organization;

.13 prepared a type approval application in compliance with the BWMS Code, annex, part 1, which includes at least the following:

.1 detailed description of the design, construction, operation and functioning of the BWMS;

.2 a list of major components, as defined in the BWMS Code, that are included in the BWMS design (for decision support see examples in table 1 in the appendix);

.3 preliminary assessment of the corrosion effects of the system proposed, if applicable;

.4 preliminary test results;

.5 technical manual;

.6 BWMS piping and instrumentation diagram (P&ID);

.7 link to the provisions required in a ballast water management plan;

.8 environmental and public health effects;

.9 specific salinities to be tested; and

.10 a list of necessary measures for the safe operation of the BWMS;

.14 provided the following, when submitting the type approval application:

.1 sufficient information to verify operation in different salinity ranges (fresh, brackish and marine water) in which the BWMS will operate;

.2 sufficient information to verify operation in the different temperature ranges (cold, temperate and tropical) in which the BWMS will operate;

.3 sufficient information to verify operation with the different sediment loads under which the BWMS will operate;

.4 sufficient information to verify operation of the minimum effective treatment flow rate as well as the maximum Treatment Rated Capacity (TRC) including the duration of these tests; and

.5 suggestions for improvements of the installation related to safety or additional testing R&D;

.15 made all laboratory-scale and, if appropriate, full-scale land-based test results and documentation, including all unsuccessful, failed and invalid tests, available to the Administration; and

.16 made all shipboard test results and documents, including all unsuccessful, failed and invalid tests, as well as detailed information of the test set up and flow rate at each test cycle, available to the Administration.

3.2 In accordance with paragraphs 4.17 to 4.22 of the *Code for Approval of Ballast Water Management Systems* (BWMS Code), Administrations should ensure that type-approved BWMS have a suitable self-monitoring system that will monitor and record sufficient data to verify correct operation of the system. Administrations should make every effort to ensure that newly installed BWMS that have already been granted type approval meet this recommendation within one year following approval of this Guidance. Administrations should

issue treatment system particulars, including details of the self-monitoring system (as described in document MEPC 61/INF.19 and BWM.2/Circ.69, as may be revised), for all type-approved systems.

3.3 To facilitate an evaluation of modifications to a BWMS with an existing type approval, the Administration should ensure that the manufacturers or their agents have:

.1 a BWMS with an existing type approval;

.2 been informed if the Administration delegates to, or utilizes the services of, a third-party quality assurance organization (e.g. recognized organization, nominated body, classification society, surveyors, etc.) in some or all of the type approval processes;

.3 received all relevant information to understand the steps and requirements of the processes outlined in the instruments listed in section 2 of this Guidance;

.4 provided a clear description of the BWMS modifications and a technical description including the main characteristics of the current BWMS component(s), a comparative evaluation of the appropriateness of the new component(s), and all relevant documentation;

.5 received all relevant information to understand which documents to submit for enabling the Administration to assess if the modification is a change to a major component in accordance with the definition in paragraph 3.9 of the BWMS Code;

.6 for modifications to major components, received all relevant information to understand the extent of any testing that the Administration may require to be completed by an independent testing facility accepted by the Administration to allow full evaluation of the BWMS modification, including any analysis related to Final Approval taking into account Procedure (G9); and

.7 made all reports of any required testing and documentation to support evaluation of the BWMS modification(s) available to the Administration.

4 RECOMMENDATIONS FOR FACILITATING TYPE APPROVAL EVALUATION

4.1 For those Administrations using third-party quality assurance organizations, due care should be taken to ensure all such arrangements are in place prior to initiating the type approval programme.

4.2 The Administration should provide the applicant with a document outlining contact details, the expected amount of time between submission and decision and any other requirements separate from the procedures and requirements outlined in the instruments listed in section 2 of this Guidance.

4.3 The Administration should verify that any recommendations made by MEPC during Basic and Final Approval have been addressed prior to issuing the Type Approval Certificate. In accordance with the BWMS Code (resolution MEPC.300(72)), part 7, the Administration should submit the final report of land-based and shipboard tests with the notification of type approval to the Organization. The reports should be available to Member States.

4.4 The Administration may certify a range of the BWMS capacities employing the same principles and technology, but due consideration should be given to limitations on performance which might arise from scaling up or scaling down.

4.5 The Administration should, in particular, review Standard Operating Procedures (SOP) for which an international standard has yet not been established.

5 APPROVAL PROCESS

5.1 Under the provisions of the BWM Convention, a BWMS is to be approved in accordance with the BWMS Code and, where appropriate, taking into account Procedure (G9).

5.2 The Administration should verify that the following issues have been specifically addressed by the manufacturer and, if the evaluation of the system is carried out by a third-party organization, these issues should be relayed to the Administration to enable a decision on:

.1 a comprehensive explanation of the physical and/or biochemical treatment processes used by the BWMS to meet the D-2 standard in the BWM Convention. This should be undertaken by the manufacturer and any supporting data should be submitted in writing. Any system which makes use of, or generates, Active Substances, Relevant Chemicals, or free radicals during the treatment process to eliminate organisms in order to comply with the Convention should be submitted to the Organization for review under Procedure (G9), paragraph 3.3;

.2 whether a BWMS makes use of an Active Substance or not remains the prerogative of the responsible Administration. In making that determination, Administrations should take into account relevant GESAMP-BWWG recommendations and MEPC decisions as to whether a system should be subject to approval under Procedure (G9). When an Administration is unsure of whether a BWMS is subject to Procedure (G9), it may choose to submit such system for review under that Procedure (MEPC 59/24, paragraph 2.16);

.3 for BWMS that the Administration determines are not subject to Procedure (G9), as provided in paragraph 2.4.11 of the annex to the BWMS Code, the toxicity testing procedures in paragraphs 5.2.2 to 5.2.7 of Procedure (G9) should be used when the system could reasonably be expected to result in changes to the treated water such that adverse impacts to receiving waters might occur upon discharge;

.4 the approval documents that should include a piping and instrumentation diagram (P&ID) with parts list and material specification. Furthermore, wiring diagrams, function description of the control and monitoring equipment and description of the regulator circuit of the BWMS;

.5 information on the preliminary testing (methodology, test water composition, salinities tested, sampling, analysis laboratories, etc.);

.6 accreditation of the BWMS Code land-based testing facility or body including their Quality Management Plan (QMP) and Quality Assurance Project Plan (QAPP) to be used by the manufacturer for land-based testing;

.7 approval and subsequent verification of the design, construction, operation and functioning of the equipment used for land-based and shipboard testing;

.8 approval and subsequent verification of the land-based and shipboard test methodology, including the composition of the test water, and specific salinities to be tested which should be in line with the BWMS Code, Procedure (G9) and the *Methodology for information gathering and conduct of work of the GESAMP-BWWG*, as appropriate (waiver for multiple testing required);

.9 approval and subsequent verification of the methodology used to take and store samples, the laboratory testing, the frequency of sampling and the analysis procedure for samples from land-based and shipboard testing;

.10 approval and subsequent verification of the design, construction, operation and functioning of the equipment used for testing;

.11 the list of major components, as defined in the BWMS Code, that are included in the BWMS design;

.12 if the system is using an Active Substance, the applications for Final Approval will have to be checked and approved by the Administration prior to making a proposal for approval to the Organization. In addition, the cost-recovery fee for the scientific services provided by the GESAMP-BWWG will have to be submitted;

.13 a safety assessment of the storage and handling of any chemicals is undertaken and approved in line with the technical guidance developed by the Organization (BWM.2/Circ.20);

.14 a safety and hazard assessment of the installation, operation and maintenance of the BWMS on the shipboard test is undertaken and approved in line with the technical guidance developed by the Organization (BWM.2/Circ.20), and includes as a minimum:

.1 any potential impact on crew health and safety; and

.2 references to the classification society safety and hazard rules and recommendations;

.15 all electrical equipment used to operate the BWMS should be of a certified safety type required by the applicable national or international standard in respect of the hazardous areas where it is located; and

.16 results of environmental testing as specified in part 3 of the annex to the BWMS Code.

5.3 For issuance of the Type Approval Certificate, the Administration should set the following requirements and provisions:

.1 the validity of the approval should be revisited as appropriate;

.2 in due time before the expiration of the approval, the manufacturer should prepare a report detailing the experiences with the system, including the results of any scientific research relevant to the system, as well as any results of port State controls, if available;

.3 the occurrence of any unexpected harmful consequences of the operation of the BWMS should be reported by the manufacturer to the Administration immediately;

.4 in accordance with the BWMS Code, the Type Approval Certificate should include details on all limiting operating conditions, restrictions and/or system design limitations (SDL) determined by the Administration for the operation of the BWMS;

.5 an annex to the Type Approval Certificate should contain the test results of each land-based and shipboard test run. Such test results should include at least the numerical salinity, temperature, flow rates, and where appropriate UV transmittance. In addition, these test results should include all other relevant variables;

.6 the Type Approval Certificate should specify the components of the BWMS that are type approved, including the manufacturer of each component, their operating ranges, including temperature, specific salinity and specify the possibility to use other similar components (e.g. filters) and the criteria for allowing such use;

.7 a separate Type Approval Certificate should be provided for each type or model of the BWMS. However, if Administrations wish to do otherwise, it is recommended that the different types and models are clearly stated and the test each type and model has undergone clearly referred to with test results, operating ranges, salinity, TRC, etc.;

.8 all accidents (e.g. accidental exposure, leakage) related to the BWMS should be reported;

.9 any indications that the system is not performing to the standards set by the BWM Convention, the BWMS Code and/or any additional provisions set by the Administration should be reported by the manufacturer to the Administration immediately;

.10 the Administration should have the opportunity to revoke the approval if these requirements are not met; and

.11 MSC.1/Circ.1221 on *Validity of Type Approval Certification for marine products* should apply.

6 EVALUATION OF MODIFICATIONS TO BWMS WITH EXISTING TYPE APPROVAL

6.1 During the life cycle of a BWMS type approval, it may become necessary, due to supply chain issues, obsolescence, life cycle performance, and/or ability, to improve the performance or cost efficiency of a system that modifications to a type approved BWMS are needed. Modifications may include BWMS design and/or operational parameters, treatment processes, or components included within a type approved BWMS that need to be upgraded, changed or replaced. When evaluating BWMS modifications, the type of component (major or minor) being modified determines the extent of the evaluation necessary to ensure continued effective operation of the BWMS.

6.2 Resolution MEPC.300(72) defines "major component" as "...those components that directly affect the ability of the system to meet the ballast water performance standard described in regulation D-2". Examples of major components may include filters, ultraviolet modules, electrochlorination cells, dosing units, etc.

6.3 Resolution MEPC.300(72) incorporates the term "non-major component" but does not provide a definition. Based on the definition of "major component" and for the purposes of this guidance, "non-major component", also referred to as a "minor component", means "those components that do not directly affect the ability of the system to meet the performance standard described in regulation D-2". Examples of minor components may include pumps, valves, common electrical components (e.g. fuses, circuit breakers), common sensors (e.g. temperature, pressure, salinity, see also appendix, table 3), and cabinetry. Many minor components within a BWMS are considered common marine equipment and may have marine type approval certificates and/or testing reports following IACS UR E10, as applicable.

6.4 The manufacturer, Administration, and, if applicable, the third-party quality assurance organization (e.g. recognized organization, nominated body, classification society, etc.) are encouraged to use figure 1 as a means to identify whether a component is a major or minor component.

6.5 The extent of evaluation for BWMS modifications should be proportional to the modification (e.g. greater potential impact of the modification on BWMS effectiveness, safety or environmental aspects may have more detailed evaluations and/or testing). For minor component modifications when the evaluation indicates that there are no identified direct impacts to the ability of a BWMS to meet the performance standards, no identified impacts to normal BWMS operation, no compromise to ship safety, or no identified impacts to Final Approval aspects under Procedure (G9), a streamlined evaluation process that facilitates time efficient type approval amendments should be implemented. Review of proposed modifications to minor components by the Administration should confirm that normal BWMS operation and/or ship safety will not be compromised. Additional testing and/or evaluation should only be required when functional equivalency has not been demonstrated, or if the review indicates there may be impacts to normal BWMS operation and/or ship safety.

6.6 When evaluating modifications to a BWMS that employs an Active Substance, Administrations should follow BWM.2/Circ.13/Rev.5, annex, section 12, as may be revised.

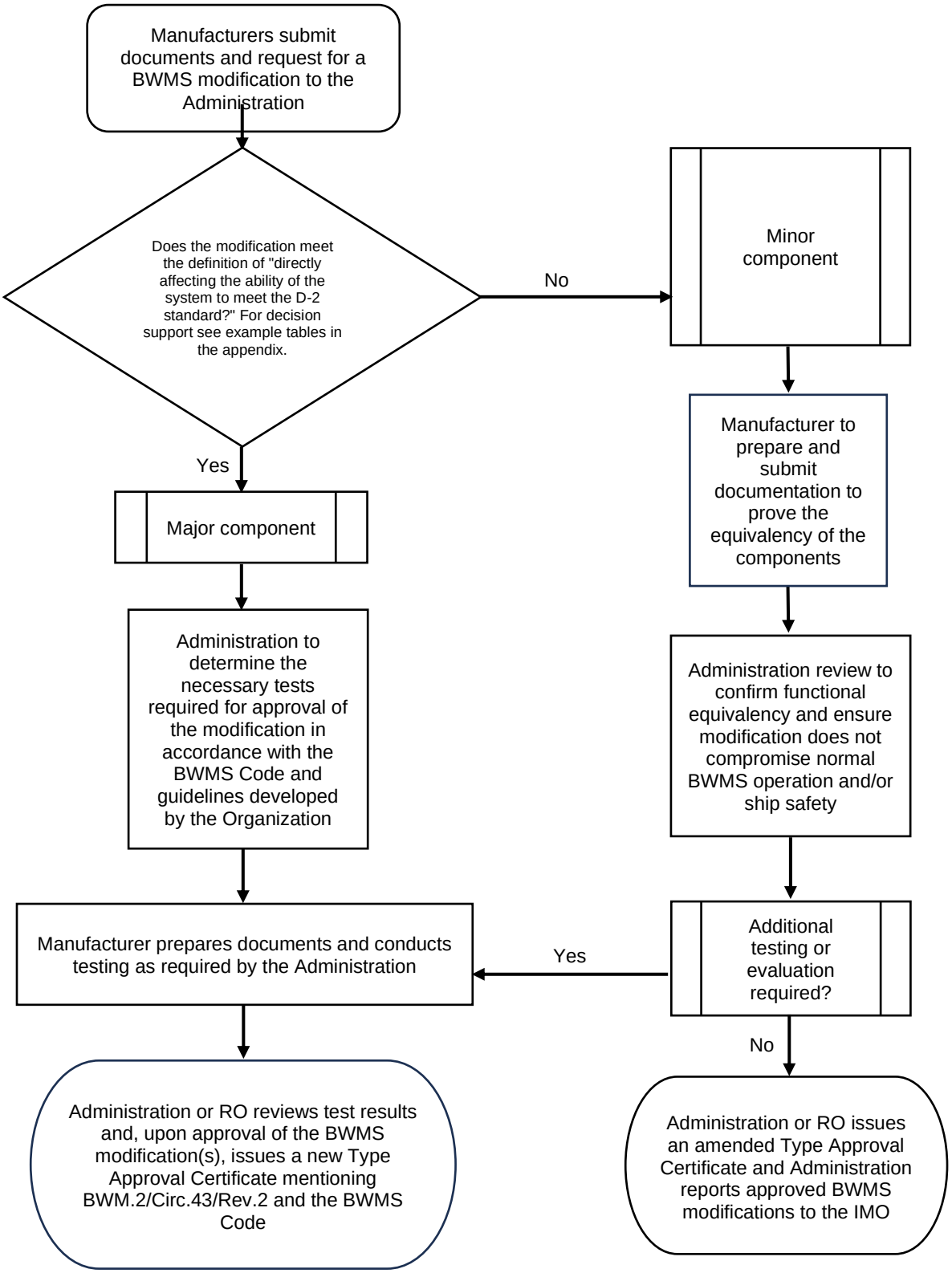

Figure 1: Process for evaluation of modifications to a BWMS with an existing type approval

6.7 Regardless of the type of BWMS modification, the manufacturer should provide to the approving Administration:

.1 a clear description of the BWMS modification and technical information to support an evaluation of the appropriateness of the modification;

.2 information on the identification of the component as either major or minor, as applicable;

.3 the specifications of the current component(s) in the existing BWMS type approval, as applicable;

.4 the specifications of the proposed new component(s), as applicable; and

.5 a comparative evaluation to demonstrate the suitability of the modification.

6.8 If the modification involves any major component of the BWMS, the Administration should determine the necessary tests for type approval of the modified BWMS, consistent with the BWMS Code and guidelines developed by the Organization. This may include land-based and/or shipboard testing of the BWMS (full, reduced or modified scope of BWMS Code testing requirements), environmental testing, disinfection by-product and/or whole effluent toxicity testing (as may be applicable to BWMS having Final Approval), operational testing, and/or SDL verification. Approval of the modified BWMS should be based on testing data related to the modified BWMS. A modified BWMS type approval should not be based on prior type approval testing data that is no longer representative of the modified BWMS.

6.9 If the BWMS modification involves a minor component, the Administration should verify that the following items have been addressed by the manufacturer:

.1 information on type approvals of the proposed new component(s); and

.2 description demonstrating that the new component does not interfere with the BWMS' ability to meet the D-2 standard and the overall function of the system in the shipboard environment.

6.10 To allow for an efficient documentation and reporting process for BWMS manufacturers with multiple type approvals, the Administration should provide a Type Approval Certificate that includes the approved BWMS modifications. Type Approval Certificates should be maintained by the BWMS manufacturer and provided to ships to which the BWMS modifications are applicable for review during port State control inspections and/or flag State surveys.

6.11 To eliminate duplication of environmental testing of individual components by multiple BWMS manufacturers, environmental testing carried out by another BWMS manufacturer or the original equipment manufacturer (OEM) of individual components should be submitted as part of the evaluation required under paragraphs 6.8 and 6.9 provided that testing meets the requirements of part 3 of the BWMS Code.

6.12 Following completion of modifications to an existing type approval by the issuing Administration, and provided that the review process in figure 1 and the applicable requirements of the BWMS Code and guidelines developed by the Organization have been followed and the BWMS modifications have been determined acceptable, other Administrations, class societies and recognized organizations are encouraged to provide mutual recognition of the modification. Also refer to paragraph 6.9 of the BWMS Code.

6.13 This Guidance should be kept under review, and modified if necessary, considering the experience gained regarding modifications to BWMS with an existing type approval and, in particular, with respect to the identification of major and minor components.

7 REPORTING OF THE TYPE APPROVAL

7.1 The Administration should forward a report of the type approval process to the Organization, including the relevant documentation as specified in part 7 of the annex to the BWMS Code.

7.2 In particular, where under Procedure (G9) the Final Approval has been granted with recommendations by the GESAMP-BWWG, evidence that these recommendations have been satisfactorily addressed at type approval should be provided to the Organization. The report should specify the findings of the Administration together with any non-confidential information taking into account Procedure (G9).

APPENDIX

To provide additional clarity on the types of components identified as "major components" (BWMS Code, definition 3.9) and "minor components" within this Guidance, the following tables of examples have been developed for consideration. The examples are not intended to be exhaustive or representative of all technologies and all components that may be associated with a particular BWMS; however, examples of common components are provided.

Table 1
Example major components

Chemical injection	Electrochlorination	Mechanical separation	Ultraviolet irradiation
• TRO or relevant sensor (if a part of the system)	• Electrolytic chamber/cell (if modification alters the technical specification, e.g. geometry anode, chlorine production) • TRO sensor	• Filter (if modification alters the technical specification, e.g. mesh, self-cleaning technology)	• UV chamber (if modification alters the technical specification of the UV chamber, e.g. geometry, inner surface reflective ability, UV lamp arrangement) • UV intensity or UV transmittance sensor (as applicable) • UV lamps • UV quartz sleeves

Table 2
Examples of changes or modifications affecting major components

Chemical injection	Electrochlorination	Mechanical separation	Ultraviolet irradiation
• Active substance formulation • Software* • Dosage	• Software* • Dosage	• Filter mesh design • Filter mesh size • Filter manufacturer or separation technology • Self-cleaning technology • Removal of filter • Filter surface area	• Software* • Dosage

* Only software modifications that have the potential to directly impact biological efficacy are considered modifications to a major component.

Table 3
Example minor components, similar technical specifications provided

- Actuation switch
- Actuation/activation button
- Alarm horn
- Cabling
- Circuit breakers
- Cleaning-in-place unit
- Conductivity sensor
- Conductivity transmitter
- Dilution blower
- Electrical cabinetry
- Filter backflush pump
- Filter index arm motor
- Flow meter
- Fuses
- Gas detector
- Heat exchanger (non-pasteurization)
- HMI screen
- Junction box
- Mixing, circulation or injection pump
- Piping materials
- Pressure transmitter
- Program Logic Controller
- Rectifier
- Remote operation panel
- Salinity transmitter
- Sensor, differential pressure
- Sensor, temperature
- Signage
- Switch, temperature
- Terminal blocks
- Touch panel
- Transformer
- Valves
- Water level switch

Components in table 3 may not be considered minor if the Administration determines that they might affect the BWMS' ability to meet the D-2 standard.

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HKSRC.2/Circ.1
1 November 2024

PROVISIONAL GUIDANCE ON THE IMPLEMENTATION OF THE HONG KONG AND BASEL CONVENTIONS WITH RESPECT TO THE TRANSBOUNDARY MOVEMENT OF SHIPS INTENDED FOR RECYCLING

1 The Marine Environment Protection Committee, at its eighty-second session (30 September to 4 October 2024), approved the *Provisional guidance on the implementation of the Hong Kong and Basel Conventions with respect to the transboundary movement of ships intended for recycling*, as set out in the annex.

2 Member States are encouraged to share their experience with the implementation of requirements and recommendations concerning ship recycling and submit information in that regard to future sessions of the Marine Environment Protection Committee and to relevant meetings under the Basel Convention.

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ANNEX

PROVISIONAL GUIDANCE ON THE IMPLEMENTATION OF THE HONG KONG AND BASEL CONVENTIONS WITH RESPECT TO THE TRANSBOUNDARY MOVEMENT OF SHIPS INTENDED FOR RECYCLING

Member States should take into account the following provisional guidance on the implementation of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (Hong Kong Convention) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention) with respect to the transboundary movement of ships intended for recycling:

.1 States that are Parties to the Hong Kong Convention but are not Parties to the Basel Convention should apply the requirements of the Hong Kong Convention;

.2 States that are Parties to the Basel Convention but are not Parties to the Hong Kong Convention should apply the requirements of the Basel Convention, including its Ban Amendment, if they have expressed their consent to be bound by it; and

.3 States that are Parties to both the Hong Kong Convention and the Basel Convention, including Parties that have expressed their consent to be bound by the Ban Amendment, with an understanding that the provisions of the Basel Convention should not affect the transboundary movements that take place pursuant to the Hong Kong Convention, should consider notifying the Secretariat of the Basel Convention as follows:

"In accordance with Article 11 of the Basel Convention, the Basel Convention Secretariat is hereby notified that [name of the State that is a Party to both the Hong Kong Convention and the Basel Convention] is a Party to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (Hong Kong Convention) and will apply the Hong Kong Convention's requirements in respect of transboundary movements of ships* intended to be recycled at a ship recycling facility that has been authorized in accordance with the Hong Kong Convention and is situated under the jurisdiction of a Party to the Hong Kong Convention.

Relevant arrangements have been made to ensure environmentally sound management of hazardous wastes and other wastes (arising from ship recycling) as required by the Basel Convention. Consequently, the provisions of the Basel Convention shall not affect transboundary movements which take place pursuant to the Hong Kong Convention."

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* Ships that fall within the scope of Article 3 (Application) of the Hong Kong Convention.

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MEPC.1/Circ.913
21 October 2024

GUIDANCE ON THE APPLICATION OF THE AMENDMENTS TO APPENDIX IX OF MARPOL ANNEX VI ON INCLUSION OF DATA ON TRANSPORT WORK AND ENHANCED GRANULARITY IN THE IMO SHIP FUEL CONSUMPTION DATABASE (IMO DCS) AS ADOPTED BY RESOLUTION MEPC.385(81)

1 The Marine Environment Protection Committee, at its eighty-second session (30 September to 4 October 2024), approved the *Guidance on the application of the amendments to appendix IX of MARPOL Annex VI on inclusion of data on transport work and enhanced granularity in the IMO Ship Fuel Consumption Database (IMO DCS)* as adopted by resolution MEPC.385(81), as set out in the annex.

2 Member Governments are invited to bring the annexed Guidance to the attention of masters, seafarers, shipowners, ship operators and other stakeholders concerned.

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ANNEX

GUIDANCE ON THE APPLICATION OF THE AMENDMENTS TO APPENDIX IX OF MARPOL ANNEX VI ON INCLUSION OF DATA ON TRANSPORT WORK AND ENHANCED GRANULARITY IN THE IMO SHIP FUEL CONSUMPTION DATABASE (IMO DCS) AS ADOPTED BY RESOLUTION MEPC.385(81)

The amended regulations 27.1 and 27.2 of MARPOL Annex VI read as follows:

> "1 From calendar year 2019, each ship of 5,000 gross tonnage and above shall collect the data specified in appendix IX to this Annex, for that and each subsequent calendar year or portion thereof, as appropriate according to the methodology included in the SEEMP.
>
> 2 Except as provided for in paragraphs 4, 5 and 6 of this regulation, at the end of each calendar year, the ship shall aggregate the data collected in that calendar year or portion thereof, as appropriate."

Regulation 5.4.5 of MARPOL Annex VI reads as follows:

> "5 The Administration shall ensure that for each ship to which regulation 27 applies, the SEEMP complies with regulation 26.2 of this Annex. This shall be done prior to collecting data under regulation 27 of this Annex in order to ensure the methodology and processes are in place prior to the beginning of the ship's first reporting period. Confirmation of compliance shall be provided to and retained on board the ship;"

Regulation 26.2 of MARPOL Annex VI reads as follows:

> "2 In the case of a ship of 5,000 gross tonnage and above, the SEEMP shall include a description of the methodology that will be used to collect the data required by regulation 27.1 of this Annex and the processes that will be used to report the data to the ship's Administration."

Guidance on application

Within the scope of application of the amendments to appendix IX of MARPOL Annex VI adopted by resolution MEPC.385(81) and aiming to maintain uniform data granularity throughout the collection and reporting process over a calendar year, the term "portion thereof" in regulations 27.1 and 27.2 of MARPOL Annex VI should be applied in such a way that all data portions for the same calendar year are to be collected and reported at the same level of granularity.

Prior to collecting data specified in appendix IX of MARPOL Annex VI as amended by resolution MEPC.385(81), each ship to which regulation 27 applies should have their SEEMP revised to ensure compliance with regulation 26.2 of MARPOL Annex VI, taking into account the *2024 Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)* (resolution MEPC.395(82).

In light of this, Administrations are invited to apply the amendments adopted by resolution MEPC.385(81) as follows:

For ships flying the flag of the Administration which implements the amendments early (1 January 2025):

.1 the SEEMP should undergo revision and verification by the Administration, or its recognized organization, to incorporate a description of the methodology intended for collecting data with enhanced granularity before 1 January 2025 or the delivery date for ships delivered on or after 1 January 2025. Those planning to retrofit flow meters or other methodologies should complete these actions within the same time frame; and

.2 data will be collected and reported with an enhanced level of granularity throughout the entire year of 2025 and beyond.

For ships flying the flag of the Administration which implements the amendments on the entry-into-force date (1 August 2025):

.1 the SEEMP should undergo revision and verification by the Administration, or its recognized organization, to incorporate a description of the methodology intended for collecting data with enhanced granularity before 1 January 2026. Those planning to retrofit flow meters or employ other methodologies should complete these actions within the same time frame;

.2 data will be collected with the existing level of granularity throughout the entire year of 2025 and, therefore, the data reported at the beginning of 2026 will be based on this consistent level. Data will be collected and reported with the enhanced level of granularity from 1 January 2026 and beyond; and

.3 ships delivered on or after 1 August 2025 should collect data at the enhanced level of granularity from the date of delivery and the data reported at the beginning of 2026 will be based on appendix IX of MARPOL Annex VI in the annex to resolution MEPC.385(81), as this provides consistent data collection and reporting for such ships on or after the entry-into-force date.

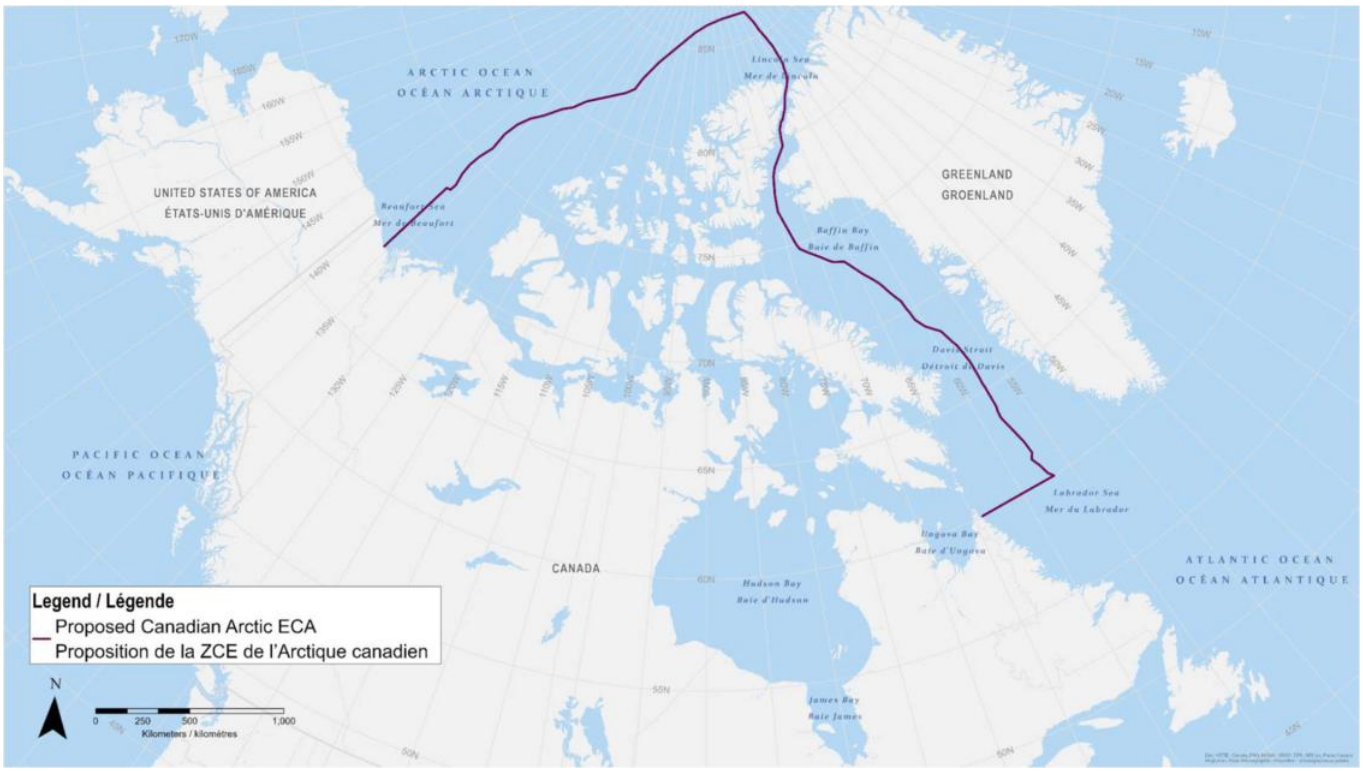

Fig. 1: Illustration of Canadian Arctic ECA

Fig. 2: Illustration of Norwegian Sea ECA