

**Table 1: List of ballast water management systems that make use of Active Substances which received Basic Approval from IMO<sup>1</sup>**

	<b>Name of the system and proposing country</b>	<b>Name of manufacturer</b>	<b>Date of Basic Approval</b>
1	Peraclean® Ocean (subsequently changed to SEDNA® Ballast Water Management System (Using Peraclean® Ocean)), Germany	Degussa GmbH, Germany	24 March 2006 (MEPC 54)
2	Electro-Clean (electrolytic disinfection) system (subsequently changed to Electro-Cleen™), Republic of Korea	Techcross Ltd. and Korea Ocean Research and Development Institute (KORDI)	24 March 2006 (MEPC 54)
3	Special Pipe Ballast Water Management System (combined with Ozone treatment), Japan (subsequently changed to FineBallast OZ (the Special Pipe Hybrid Ballast Water Management System combined with Ozone treatment version))	Japan Association of Marine Safety (JAMS)	13 October 2006 (MEPC 55)
4	EctoSys™ electrochemical system, Sweden (subsequently changed to the RWO ballast water management system)	Permascand AB, Sweden, subsequently acquired by RWO GmbH, Germany	13 October 2006 (MEPC 55)
5	PureBallast System, Sweden	Alfa Laval/Wallenius Water AB	13 July 2007 (MEPC 56)
6	NK Ballast Water Treatment System, Republic of Korea (subsequently changed to NK-O3 BlueBallast System (Ozone), subsequently changed to NK-O3 BlueBallast II Plus)	NK Company Ltd., Republic of Korea	13 July 2007 (MEPC 56)
7	Hitachi Ballast Water Purification System (ClearBallast), Japan	Hitachi, Ltd./Hitachi Plant technologies, Ltd.	4 April 2008 (MEPC 57)
8	Resource Ballast Technologies System, South Africa	Resource Ballast Technologies (Pty) Ltd.	4 April 2008 (MEPC 57)
9	GloEn-Patrol™ Ballast Water Management System, Republic of Korea	Panasia Co., Ltd.	4 April 2008 (MEPC 57)
10	OceanSaver® Ballast Water Management System, Norway	MetaFil AS (subsequently changed to OceanSaver AS)	4 April 2008 (MEPC 57)
11	TG Ballastcleaner and TG Environmentalguard System (subsequently changed to JFE Ballast Water Management System), Japan	The Toagosei Group (TG Corporation, Toagosei Co., Ltd. and Tsurumi Soda Co., Ltd.)	10 October 2008 (MEPC 58)
12	Greenship Sedinox Ballast Water Management System, the Netherlands	Greenship Ltd	10 October 2008 (MEPC 58)
13	Ecochlor® Ballast Water Treatment System, Germany	Ecochlor, Inc, Acton, the United States	10 October 2008 (MEPC 58)

<sup>1</sup> More comprehensive information regarding the systems approved until October 2024 is available in BWM.2/Circ.34/Rev.13.

Table 1 (continued)

	Name of the system and proposing country	Name of manufacturer	Date of Basic Approval
14	Blue Ocean Shield Ballast Water Management System, China	China Ocean Shipping (Group) Company (COSCO)	17 July 2009 (MEPC 59)
15	Hyundai Heavy Industries Co., Ltd. (HHI) Ballast Water Management System (EcoBallast), Republic of Korea	Hyundai Heavy Industries Co., Ltd., Republic of Korea	17 July 2009 (MEPC 59)
16	AquaTriComb™ Ballast Water Treatment System, Germany	Aquaworx ATC GmbH	17 July 2009 (MEPC 59)
17	SICURE™ Ballast Water Management System, Germany (subsequently changed to SeaCURE® BWMS)	Siemens Water Technologies (subsequently changed to Evoqua Water Technologies Ltd)	26 March 2010 (MEPC 60)
18	Sunrui Ballast Water Management System (subsequently changed to BalClor Ballast Water Management System), China	Qingdao Sunrui Corrosion and Fouling Control Company	26 March 2010 (MEPC 60)
19	DESMI Ocean Guard Ballast Water Management System, Denmark	DESMI Ocean Guard A/S	26 March 2010 (MEPC 60)
20	Blue Ocean Guardian (BOG) Ballast Water Management System, (subsequently changed to "ARA Ballast" Ballast Water Management System), Republic of Korea	21st Century Shipbuilding Co., Ltd.	26 March 2010 (MEPC 60)
21	HiBallast™ (Hyundai Heavy Industries Co., Ltd. (HHI) Ballast Water Management System (HiBallast)), Republic of Korea	Hyundai Heavy Industries Co., Ltd., Republic of Korea	26 March 2010 (MEPC 60)
22	Kwang San Co., Ltd. (KS) Ballast Water Management System "En-Ballast", Republic of Korea	Kwang San Co., Ltd.	26 March 2010 (MEPC 60)
23	OceanGuard™ Ballast Water Management System, Norway	Qingdao Headway Technology Co., Ltd.	26 March 2010 (MEPC 60)
24	Severn Trent DeNora BalPure® Ballast Water Management System (subsequently changed to BalPure® BP-500, subsequently changed to BALPURE®), Germany	Severn Trent De Nora (STDN), LLC	26 March 2010 (MEPC 60)
25	Techwin Eco Co., Ltd. (TWECO) Ballast Water Management System (Purimar) (subsequently changed to Purimar™), Republic of Korea	Techwin Eco Co., Ltd. Purchased by Samsung	1 October 2010 (MEPC 61)
26	AquaStar Ballast Water Management System, Republic of Korea (subsequently changed to AquaStar™ BWMS, MACGREGOR WATER BALLAST TREATMENT SYSTEM and AQUASTAR™)	AQUA Eng. Co., Ltd.	1 October 2010 (MEPC 61)
27	Kuraray Ballast Water Management System, (subsequently changed to MICROFADE™ Ballast Water Management System), Japan	Kuraray Co., Ltd.	1 October 2010 (MEPC 61)

Table 1 (continued)

	Name of the system and proposing country	Name of manufacturer	Date of Basic Approval
28	ERMA FIRST Ballast Water Management System (subsequently changed to ERMA FIRST BWTS), Greece	ERMA FIRST ESK Engineering Solutions S.A.	15 July 2011 (MEPC 62)
29	BlueSeas Ballast Water Management System, Singapore	Envirotech and Consultancy Pte. Ltd.	15 July 2011 (MEPC 62)
30	SKY-SYSTEM <sup>®</sup> with Peraclean <sup>®</sup> Ocean Ballast Water Management System, Japan	Katayama Chemical, Inc.	15 July 2011 (MEPC 62)
31	JFE BallastAce that makes use of NEO-CHLOR MARINE <sup>®</sup> , Japan	JFE Engineering Corporation	15 July 2011 (MEPC 62)
32	BallastMaster Ballast Water Management System, Germany	GEA Westfalia Separator Systems GmbH	15 July 2011 (MEPC 62)
33	BlueWorld Ballast Water Management System, Singapore	Envirotech and Consultancy Pte. Ltd.	15 July 2011 (MEPC 62)
34	Neo-Purimar <sup>™</sup> Ballast Water Management System, Republic of Korea	Samsung Heavy Industries Co., Ltd.	15 July 2011 (MEPC 62)
35	"Smart Ballast" Ballast Water Management System, Republic of Korea	STX Metal Co., Ltd.	2 March 2012 (MEPC 63)
36	DMU -OH Ballast Water Management System, China	Dalian Maritime University	2 March 2012 (MEPC 63)
37	EcoGuardian <sup>™</sup> Ballast Water Management System, Republic of Korea	Hanla IMS Co., Ltd.	2 March 2012 (MEPC 63)
38	KTM-Ballast Water Management System, Republic of Korea (subsequently changed to MARINOMATE <sup>™</sup> Ballast Water Management System)	Korea Top Marine (KT Marine) Co., Ltd.	5 October 2012 (MEPC 64)
39	Hamworthy Aquarius <sup>™</sup> -EC BWMS, the Netherlands (subsequently changed to Aquarius <sup>™</sup> -EC BWMS)	Hamworthy Water Systems Ltd.	5 October 2012 (MEPC 64)
40	OceanDoctor Ballast Water Management System, China	Jiujiang Precision Measuring Technology Research Institute	5 October 2012 (MEPC 64)
41	HS-BALLAST Ballast Water Management System, Republic of Korea	HWASEUNG R&A Co., Ltd.	5 October 2012 (MEPC 64)
42	GloEn-Saver <sup>™</sup> Ballast Water Management System, Republic of Korea	PANASIA Co., Ltd.	5 October 2012 (MEPC 64)
43	Van Oord Ballast Water Management System, the Netherlands	Van Oord B.V.	17 May 2013 (MEPC 65)
44	REDOX AS Ballast Water Management System, Norway	REDOX Maritime Technologies AS	17 May 2013 (MEPC 65)
45	BlueZone <sup>™</sup> Ballast Water Management System, Republic of Korea	SUNBO INDUSTRIES Co., Ltd., DSEC Co., Ltd., and the Korean Institute of Machinery & Material (KIMM)	17 May 2013 (MEPC 65)
46	ECOLCELL BTs Ballast Water Management System, Italy	Azienda Chimica Genovese (ACG)	4 April 2014 (MEPC 66)

Table 1 (continued)

	Name of the system and proposing country	Name of manufacturer	Date of Basic Approval
47	Ecomarine-EC Ballast Water Management System, Japan	Ecomarine Technology Research Association	4 April 2014 (MEPC 66)
48	ATPS-BLUE <sub>sys</sub> Ballast Water Management System, Japan	Panasonic Environmental Systems & Engineering Co., Ltd.	4 April 2014 (MEPC 66)
49	KURITA™ Ballast Water Management System, Japan (subsequently changed to Senza BWMS)	Kurita Water Industries Ltd.	4 April 2014 (MEPC 66)
50	ElysisGuard ballast water management system, Singapore	KALF Engineering Pte. Ltd.	17 October 2014 (MEPC 67)
51	NK-CI BlueBallast System, Republic of Korea	NK Company Ltd.	15 May 2015 (MEPC 68)
52	ECS-HYCHLOR™ System, Republic of Korea	TECHCROSS Inc.	15 May 2015 (MEPC 68)
53	ECS-HYCHEM™ System, Republic of Korea	TECHCROSS Inc.	15 May 2015 (MEPC 68)
54	ECS-HYBRID™ System, Republic of Korea	TECHCROSS Inc.	15 May 2015 (MEPC 68)
55	VARUNA Ballast Water Treatment System, Singapore	Kadalneer Technologies Pte. Ltd.	15 May 2015 (MEPC 68)
56	ClearBal BWMS, Denmark	University of Strathclyde	28 October 2016 (MEPC 70)
57	MICROFADE II BWMS, Netherlands	Kashiwa Co., Ltd. and Kuraray Co., Ltd	7 July 2017 (MEPC 71)
58	Envirocleanse inTank™ BWTS, Norway (subsequently changed to inTank BWTS)	Envirocleanse, LLC (ownership subsequently transferred to Scienco/FAST)	7 July 2017 (MEPC 71)
59	BIOBALLAST 1000, Germany	Biomarine S.r.l.	26 October 2018 (MEPC 73)
60	CleanBallast® – Ocean Barrier System, Norway	Veolia Water Technologies Deutschland GmbH	17 May 2019 (MEPC 74)
61	FlowSafe, Cyprus	Flowater Technologies Ltd.	17 May 2019 (MEPC 74)
62	RADClean® BWMS, Islamic Republic of Iran	Rahavaran Ayandeh Darya Company, RAD Co.	26 November 2021 (MEPC 77)
63	HiBallast 2.0™ BWMS, Republic of Korea	Hyundai Heavy Industries (HHI)	7 July 2023 (MEPC 80)
64	ERMA FIRST FLOW BWMS, Denmark	ERMA FIRST ESK Engineering Solutions SA	22 March 2024 (MEPC 81)

**Table 2: List of ballast water management systems that make use of Active Substances which received Final Approval from IMO<sup>2</sup>**

	Name of the system and proposing country	Name of manufacturer	Date of Final Approval
1	PureBallast System, Norway	Alfa Laval/Wallenius Water AB	13 July 2007 (MEPC 56)
2	SEDNA® Ballast Water Management System (Using Peraclean® Ocean), Germany	Degussa GmbH, Germany	4 April 2008 (MEPC 57)
3	Electro-Cleen™ System, Republic of Korea  Final Approval extended for use in fresh water	Techcross Ltd. and Korea Ocean Research and Development Institute (KORDI)	10 October 2008 (MEPC 58)  20 November 2020 (MEPC 75)
4	OceanSaver® Ballast Water Management System, Norway	OceanSaver AS	10 October 2008 (MEPC 58)
5	RWO Ballast Water Management System (CleanBallast), Germany	RWO GmbH Marine Water Technology, Germany	17 July 2009 (MEPC 59)
6	NK-O3 BlueBallast System (Ozone), Republic of Korea (subsequently changed to NK-O3 BlueBallast II Plus)  Final Approval extended for use in fresh water, Liberia	NK Company Ltd., Republic of Korea	17 July 2009 (MEPC 59)  20 November 2020 (MEPC 75)
7	Hitachi Ballast Water Purification System (ClearBallast), Japan	Hitachi, Ltd. /Hitachi Plant technologies, Ltd.	17 July 2009 (MEPC 59)
8	Greenship Sedinox Ballast Water Management System, the Netherlands	Greenship Ltd	17 July 2009 (MEPC 59)
9	GloEn-Patrol™ Ballast Water Management System, Republic of Korea	Panasia Co., Ltd.	26 March 2010 (MEPC 60)
10	Resource Ballast Technologies System, South Africa	Resource Ballast Technologies (Pty) Ltd.	26 March 2010 (MEPC 60)
11	JFE BallastAce® Ballast Water Management System, Japan	JFE Engineering Corporation	26 March 2010 (MEPC 60)
12	Hyundai Heavy Industries Co., Ltd. (HHI) Ballast Water Management System (EcoBallast), Republic of Korea	Hyundai Heavy Industries Co., Ltd., Republic of Korea	26 March 2010 (MEPC 60)
13	Special Pipe Hybrid Ballast Water Management System combined with Ozone treatment version (SP-Hybrid BWMS Ozone version), Japan	Mitsui Engineering & Shipbuilding Co., Ltd.	1 October 2010 (MEPC 61)
14	"ARA Ballast" Ballast Water Management System, Republic of Korea	21st Century Shipbuilding Co., Ltd.	1 October 2010 (MEPC 61)
15	BalClor Ballast Water Management System, China	Qingdao Sunrui Corrosion and Fouling Control Company	1 October 2010 (MEPC 61)
16	OceanGuard™ Ballast Water Management System, Norway	Qingdao Headway Technology Co., Ltd.	1 October 2010 (MEPC 61)

<sup>2</sup>

More comprehensive information regarding the systems approved until October 2024 is available in BWM.2/Circ.34/Rev.13.

Table 2 (continued)

	Name of the system and proposing country	Name of manufacturer	Date of Final Approval
17	Ecochlor <sup>®</sup> Ballast Water Management System, Germany	Ecochlor Inc, Acton, the United States	1 October 2010 (MEPC 61)
18	Severn Trent De Nora BalPure <sup>®</sup> Ballast Water Management System (subsequently changed to BalPure <sup>®</sup> BP-500, subsequently changed to BALPURE <sup>®</sup> ), Germany  Final Approval extended for use in fresh water, United Kingdom	Severn Trent De Nora (STDN), LLC (subsequently changed to De Nora Water Technologies (DNWT))	1 October 2010 (MEPC 61)  20 November 2020 (MEPC 75)
19	HiBallast <sup>™</sup> , Republic of Korea  Final Approval extended for use in fresh water	Hyundai Heavy Industries Co., Ltd.	15 July 2011 (MEPC 62)  20 November 2020 (MEPC 75)
20	Purimar <sup>™</sup> Ballast Water Management System, Republic of Korea  Final Approval extended for use in fresh water	Samsung Heavy Industries Co., Ltd.	15 July 2011 (MEPC 62)  17 May 2019 (MEPC 74)
21	SiCURE <sup>™</sup> Ballast Water Management System, Germany (subsequently changed to SeaCURE <sup>®</sup> BWMS)	Siemens Water Technologies (subsequently changed to Evoqua Water Technologies Ltd)	2 March 2012 (MEPC 63)  Revised 20 November 2020 (MEPC 75)
22	ERMA FIRST Ballast Water Management System (subsequently changed to ERMA FIRST BWTS), Greece  Final Approval extended for use in fresh water	ERMA FIRST E.S.K. Engineering Solutions S.A.	2 March 2012 (MEPC 63)  7 July 2023 (MEPC 80)
23	MICROFADE <sup>™</sup> Ballast Water Management System, Japan	Kuraray Co., Ltd.	2 March 2012 (MEPC 63)
24	AquaStar <sup>™</sup> Ballast Water Management, Republic of Korea (subsequently changed to AquaStar <sup>™</sup> BWMS, MACGREGOR WATER BALLAST TREATMENT SYSTEM and AQUASTAR <sup>™</sup> )	AQUA Eng. Co.	2 March 2012 (MEPC 63)
25	Neo-Purimar <sup>™</sup> Ballast Water Management System, Republic of Korea	Samsung Heavy Industries Co., Ltd. (SHI)	2 March 2012 (MEPC 63)
26	DESMI Ocean Guard BWMS, Denmark	DESMI Ocean Guard A/S	5 October 2012 (MEPC 64)
27	JFE BallastAce that makes use of NEO-CHLOR MARINE <sup>®</sup> , Japan	JFE Engineering Corporation	5 October 2012 (MEPC 64)  Revised 26 November 2021 (MEPC 77)

Table 2 (continued)

	<b>Name of the system and proposing country</b>	<b>Name of manufacturer</b>	<b>Date of Final Approval</b>
28	Smart Ballast BWMS, Republic of Korea	STX Metal Co., Ltd.	5 October 2012 (MEPC 64)
29	AQUARIUS® EC Ballast Water Management System, the Netherlands (subsequently changed to Wärtsilä Aquarius EC BWMS)	Wärtsilä Water Systems Limited	17 May 2013 (MEPC 65)
30	EcoGuardian™ Ballast Water Management System, Republic of Korea  Final Approval extended for use in fresh water	Hanla IMS Co., Ltd.	17 May 2013 (MEPC 65)  20 November 2020 (MEPC 75)
31	OceanDoctor BWMS, China	Jiujiang Precision Measuring Technology Research Institute and Institute of Marine Materials Science and Engineering of Shanghai Maritime University	17 May 2013 (MEPC 65)
32	Ballast Water Management System with PERACLEAN® OCEAN (SKY-SYSTEM), Japan	Nippon Yuka Kogyo Co., and Katayama Chemical, Inc.	4 April 2014 (MEPC 66)
33	Evonik Ballast Water Treatment System with PERACLEAN® OCEAN, Germany	Evonik Industries AG	4 April 2014 (MEPC 66)
34	MARINOMATE™ Ballast Water Management System, Republic of Korea	KT Marine Co. Ltd.	17 October 2014 (MEPC 67)
35	BlueZone™ Ballast Water Management System, Republic of Korea	SUNBO Industries Co. Ltd.	17 October 2014 (MEPC 67)
36	KURITA Ballast Water Management System, Japan (subsequently changed to Senza BWMS)	Kurita Water Industries Ltd.	17 October 2014 (MEPC 67)
37	Ecomarine-EC Ballast Water Management System, Japan	Ecomarine Technology Research Association	15 May 2015 (MEPC 68)
38	ECS-HYCHLOR™ System, Republic of Korea	TEHCROSS Inc.	22 April 2016 (MEPC 69)
39	NK-CI BlueBallast System, Republic of Korea	NK Company Ltd.	22 April 2016 (MEPC 69)
40	ATPS-BLUE <sub>sys</sub> Ballast Water Management System, Japan	Panasonic Environmental Systems & Engineering Co., Ltd.	22 April 2016 (MEPC 69)
41	ECS-HYCHEM™ System, Republic of Korea	TEHCROSS Inc.	28 October 2016 (MEPC 70)
42	ECS-HYBRID™ System, Republic of Korea	TEHCROSS Inc.	7 July 2017 (MEPC 71)
43	Envirocleanse inTank™ BWTS (Electrochlorination Variation), Norway (subsequently changed to inTank BWTS Electrochlorination (EC) variation)	Envirocleanse, LLC. (ownership subsequently transferred to Scienco/FAST)	26 October 2018 (MEPC 73)

Table 2 (continued)

	<b>Name of the system and proposing country</b>	<b>Name of manufacturer</b>	<b>Date of Final Approval</b>
44	Envirocleanse inTank™ BWTS (Bulk Chemical Variation), Norway (subsequently changed to inTank BWTS Bulk Chemical (BC) variation)	Envirocleanse, LLC (ownership subsequently transferred to Scienco/FAST)	17 May 2019 (MEPC 74)
45	MICROFADE II, Japan	Kuraray Co., Ltd.	17 May 2019 (MEPC 74)
46	CleanBallast® – Ocean Barrier System, Norway	Veolia Water Technologies Deutschland GmbH	20 November 2020 (MEPC 75)
47	HiBallast NF™ Ballast Water Management System, Republic of Korea	Hyundai Heavy Industries Co., Ltd. (HHI)	26 November 2021 (MEPC 77)
48	ECS-HYCHLOR™ 2.0 System, United Kingdom	TECHCROSS Inc.	16 December 2022 (MEPC 79)
49	RADClean® BWMS, Islamic Republic of Iran	Rahavaran Ayandeh Darya Company, RAD Co.	16 December 2022 (MEPC 79)
50	BalClor® Smart BWMS, Denmark	Sunrui Marine Environment Engineering Co., Ltd.	7 July 2023 (MEPC 80)
51	EcoGuardian NF™ Ballast Water Management System, Liberia	HANLA IMS Co., Ltd.	7 July 2023 (MEPC 80)
52	HiBallast 2.0™ BWMS, Republic of Korea	HD Korea Shipbuilding & Offshore Engineering	4 October 2024 (MEPC 82)



**Table 3: List of type approvals for ballast water management systems that are in accordance with the 2016 Guidelines (G8) or the BWMS Code (resolution MEPC.279(70) or MEPC.300(72))\***

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
1	24 October 2017 (revised 27 October 2017 and 4 September 2018)	Norwegian Maritime Authority	Ecochlor® Ballast Water Management System	Provided (MEPC 75/INF.18)	Yes, please refer to MEPC 61/2/21, annex 6	Please see MEPC 61/24, paragraph 2.7
2	2 February 2018	Norwegian Maritime Authority	PureBallast 3.2 and PureBallast 3.2 Compact Flex ballast water management system	Provided (MEPC 72/INF.19)	No Active Substances used according to the communication received from the Administration of Singapore (please refer to MEPC 72/INF.19)	Not applicable
3	6 April 2018 (revised 20 December 2018)	Norwegian Maritime Authority	BalClor® Ballast Water Management System	Provided (MEPC 74/INF.7)	Yes, please refer to MEPC 61/2/15, annex 9	MEPC 61/24, Paragraph 2.7
4	21 September 2018 (revised 19 July 2021)	Danish Environmental Protection Agency and Danish Maritime Authority	CompactClean ballast water management system	Provided (MEPC 74/INF.32, MEPC 77/INF.12)	No Active Substances used according to the communication received from the Administration of Denmark (please refer to MEPC 74/INF.32 and MEPC 77/INF.12)	Not applicable
5	14 December 2018	Norwegian Maritime Authority	OceanGuard® Ballast Water Management System	Provided (MEPC 74/INF.9)	Yes, please refer to MEPC 61/2/21, annex 5	Please see MEPC 61/24, paragraph 2.7
6	19 December 2018	Norwegian Maritime Authority	HiBallast™ Ballast Water Management System	Provided (MEPC 74/INF.8)	Yes, please refer to MEPC 62/2/18, annex 5	MEPC 62/24, paragraph 2.5

\* Table 3 was compiled based on information provided to IMO by the respective Administrations in accordance with part 7 of the annex to the *Code for Approval of Ballast Water Management Systems* (resolution MEPC.300(72)).

Table 3 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
7	20 December 2018	Norwegian Maritime Authority	Envirocleanse inTank™ Electrochlorination Ballast Water Treatment System  (subsequently changed to inTank BWTS Electrochlorination (EC) variation)	Provided (MEPC 74/INF.6)	Yes, please refer to MEPC 73/4/2, annex 5	Please see MEPC 73/19, paragraph 4.4
8	15 May 2019	The Maritime and Coastguard Agency, United Kingdom	Evolution Mini, Evolution BWMS	Provided (MEPC 75/INF.6)	No Active Substances used according to the communication received from the Administration of the United Kingdom, please see MEPC 75/INF.6	Not applicable
9	27 June 2019	Hellenic Republic, Ministry of Maritime Affairs and Insular Policy, Hellenic Coast Guard Headquarters, Ships Inspection General Directorate, Ships' Design and Construction Directorate	ERMA FIRST BWTS, model FIT 75-3000	Provided (MEPC 75/INF.7)	Yes, please refer to MEPC 63/2/11, annex 5	MEPC 63/23, paragraph 2.7
10	4 July 2019	Norwegian Maritime Authority	Envirocleanse inTank™ Bulk Chemical Ballast Water Treatment System	Provided (MEPC 75/INF.16)	Yes, please refer to MEPC 74/4/6, annex 4	Please see MEPC 74/18, paragraph 4.38
11	5 July 2019  (revised 13 June 2022)	Norwegian Maritime Authority	BLUE OCEAN SHIELD BWMS	Provided (MEPC 75/INF.14, MEPC 79/INF.12)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 75/INF.14	Not applicable

Table 3 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
12	16 August 2019	Norwegian Maritime Authority	GloEn-Patrol 2.0	Provided (MEPC 75/INF.15)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 75/INF.15	Not applicable
13	31 October 2019	Lloyd's Register, on behalf of the Danish Environmental Protection Agency (DEPA) and Danish Maritime Authority (DMA).	Bawat BWMS Mk2	Provided (MEPC 75/INF.12)	No Active Substances used according to the communication received from the Administration of Denmark in MEPC 75/INF.12	Not applicable
14	8 January 2020	Vietnam Register, the Vietnam Ministry of Transport	PureBallast 3.2 and PureBallast 3.2 Compact Flex ballast water management system	Provided (MEPC 76/INF.3)	No Active Substances used according to the communication received from the Administration of Viet Nam (please refer to MEPC 76/INF.3)	Not applicable
15	15 January 2020	Norwegian Maritime Authority	Oceansaver Ballast Water Treatment System MKIIB	Provided (MEPC 75/INF.17)	Yes, please refer to MEPC 58/2/8, annex 4	MEPC 58/23, paragraph 2.10
16	23 January 2020	Norwegian Maritime Authority	Hyde GUARDIAN-US BWTS	Provided (MEPC 75/INF.21)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 75/INF.21	Not applicable
17	10 February 2020	Norwegian Maritime Authority	ECS-HYCHLOR™ BWMS	Provided (MEPC 76/INF.47)	Yes, please refer to MEPC 69/4/5, annex 4	Please see MEPC 69/21 paragraph 4.6

Table 3 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
18	25 February 2020, 22 June 2020, 10 January 2021	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	Miura BWMS	Provided (MEPC 76/INF.34, MEPC 76/INF.35 and MEPC 76/INF.36)	No Active Substances used according to the communication received from the Administration of Japan in MEPC 76/INF.34, MEPC 76/INF.35 and MEPC 76/INF.36	Not applicable
19	6 March 2020	Maritime Safety Administration of the People's Republic of China	LeesGreen® Ballast Water Management System (LeesGreen® BWMS)	Provided (MEPC 76/INF.58)	No Active Substances used according to the communication received from the Administration of China in MEPC 76/INF.58	Not applicable
20	20 March 2020	Norwegian Maritime Authority	Wärtsilä Aquarius UV BWMS	Provided (MEPC 76/INF.18)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 76/INF.18	Not applicable
21	6 April 2020	Netherlands Shipping Inspectorate	MICROFADE II BWMS	Provided (MEPC 77/INF.7)	Yes, please refer to MEPC 74/4/6, annex 6	Please see MEPC 74/18, paragraph 4.38
22	15 May 2020	Norwegian Maritime Authority	Seascope BWMS	Provided (MEPC 76/INF.52)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 76/INF.52	Not applicable
23	19 May 2020	Maritime Safety Administration of the People's Republic of China	NiBallast™ ballast water management system (NiBallast™ BWMS)	Provided (MEPC 77/INF.21)	No Active Substances used according to the communication received from the Administration of China in MEPC 77/INF.21	Not applicable

Table 3 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
24	12 June 2020	Norwegian Maritime Authority	Wärtsilä Aquarius EC BWMS	Provided (MEPC 76/INF.49)	Yes, please refer to MEPC 65/2/9, annex 5	Please see MEPC 65/22, paragraph 2.8
25	15 June 2020	Maritime Safety Administration of the People's Republic of China	Cyeco BWMS	Provided (MEPC 76/INF.59)	No Active Substances used according to the communication received from the Administration of China in MEPC 76/INF.59	Not applicable
26	19 June 2020	Norwegian Maritime Authority	KBAL BWMS	Provided (MEPC 76/INF.62)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 76/INF.62	Not applicable
27	3 July 2020	Norwegian Maritime Authority	oneTank	Provided (MEPC 76/INF.14)	Yes, please refer to MEPC 74/4/6, annex 4	Please see MEPC 74/18 paragraph 4.38
28	3 August 2020 (revised 6 September 2021)	Norwegian Maritime Authority	Ecochlor® BWMS	Provided (MEPC 76/INF.48, MEPC 78/INF.6)	Yes, please refer to MEPC 61/2/21, annex 3	Please see MEPC 61/24, paragraph 2.7
29	5 August 2020 (revised 5 May 2023)	The Maritime and Port Authority of Singapore	Semb-Eco LUV BWMS	Provided (MEPC 76/INF.26, MEPC 81/INF.16)	No Active Substances used according to the communication received from the Administration of Singapore in MEPC 76/INF.26	Not applicable
30	7 September 2020	The Ministry of Oceans and Fisheries, Republic of Korea	Electro-Clean™ System (ECS)	Provided (MEPC 77/INF.14)	Yes, please refer to MEPC 58/2/7, annex 7	Please see MEPC 58/23, paragraph 2.8, and MEPC 75/18, paragraph 4.3

Table 3 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
31	7 September 2020	The Ministry of Ocean and Fisheries, Republic of Korea	Purimar™	Provided (MEPC 77/INF.15)	Yes, please refer to MEPC 62/2/18, annex 6	Please see MEPC 62/24, paragraph 2.5, and MEPC 74/18, paragraph 4.38
32	7 September 2020	The Ministry of Oceans and Fisheries, Republic of Korea	EcoGuardian™ BWMS	Provided (MEPC 77/INF.17)	Yes, please refer to MEPC 65/2/19, annex 5	Please see MEPC 65/22, paragraph 2.8, and MEPC 75/18, paragraph 4.3
33	10 September 2020	Vietnam Register, the Vietnam Ministry of Transport	TLC-BWM	Provided (MEPC 76/INF.4)	No Active Substances used according to the communication received from the Administration of Viet Nam in MEPC 76/INF.4	Not applicable
34	12 October 2020	Norwegian Maritime Authority	SKF BlueSonic BWMS	Provided (MEPC 76/INF.51)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 76/INF.51	Not applicable
35	23 October 2020	Norwegian Maritime Authority	Optimarin Ballast System (OBS) and Optimarin Ballast System Ex (OBS Ex)	Provided (MEPC 76/INF.15)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 76/INF.15	Not applicable
36	10 November 2020	Norwegian Maritime Authority	ATPS-BLUE <sub>sys</sub> BWMS	Provided (MEPC 76/INF.50)	Yes, please refer to MEPC 69/4/5, annex 6	Please see MEPC 69/21, paragraph 4.6

Table 3 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
37	11 November 2020	Norwegian Maritime Authority	inTank BWTS (inTank BWTS Electrochlorination (EC) variation and inTank BWTS Bulk Chemical (BC) variation)	Provided (MEPC 76/INF.13)	Yes, please refer to MEPC 73/4/2, annex 5	Please see MEPC 73/19, paragraph 4.4, and MEPC 74/18, paragraph 4.38
38	25 November 2020	Government of the United Kingdom of Great Britain and Northern Ireland	BALPURE® Ballast Water Management System	Provided (MEPC 76/INF.6)	Yes, please refer to MEPC 61/2/21, annex 7	Please see MEPC 61/24, paragraph 2.7, and MEPC 75/18, paragraph 4.3
39	2 December 2020	Norwegian Maritime Authority	Trojan Marinex BWT™	Provided (MEPC 76/INF.55)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 76/INF.55	Not applicable
40	9 December 2020	Norwegian Maritime Authority	NGT BWMS	Provided (MEPC 76/INF.53)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 76/INF.53	Not applicable
41	15 December 2020	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	JFE BallastAce®	Provided (MEPC 76/INF.37)	Yes, please refer to MEPC 60/2/12, annex 5	MEPC 60/22, paragraph 2.7
42	21 December 2020	Maritime Safety Administration of the People's Republic of China	PACT marine Ballast Water Management System (Pact marine BWMS)	Provided (MEPC 76/INF.57)	No Active Substances used according to the communication received from the Administration of China in MEPC 76/INF.57	Not applicable

Table 3 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
43	31 December 2020	Administration of the People's Republic of China	BSKY™ Ballast Water Management System	Provided (MEPC 76/INF.66)	No Active Substances used according to the communication received from the Administration of China in MEPC 76/INF.66	Not applicable
44	19 January 2021  (revised 10 August 2021)	Norwegian Maritime Authority	KURITA BWMS (subsequently changed to Senza BWMS)	Provided (MEPC 76/INF.54, MEPC 79/INF.5)	Yes, please refer to MEPC 67/2/4, annex 6	Please see MEPC 67/20, paragraph 2.6
45	3 March 2021  (revised 8 November 2021)	Ministry for the Sea – France	BIO-SEA® BWTS	Provided (MEPC 76/INF.19, MEPC 78/INF.8)	No Active Substances used according to the communication received from the Administration of France in MEPC 76/INF.19	Not applicable
46	20 April 2021	Liberia Maritime Authority	SeaCURE® BWMS and SeaCURE Models SC-F-500 to SC-F-6000	Provided (MEPC 77/INF.4)	Yes, please refer to MEPC 63/2/10, annex 6	Please see MEPC 63/23, paragraph 2.7
47	19 July 2021	Norwegian Maritime Authority	Atlantium Purestream™ 100/200/300/500/900/1200/1500	Provided (MEPC 77/INF.13)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 77/INF.13	Not applicable
48	30 December 2021	The Ministry of Ocean and Fisheries Republic of Korea	HiBallast NF™	Provided (MEPC 79/INF.14)	Yes, please refer to MEPC 77/4/4, annex 7	Please see MEPC 77/16, paragraph 4.3
49	7 January 2022	Norwegian Maritime Authority	CleanBallast® – Ocean Barrier System	Provided (MEPC 78/INF.2)	Yes, please refer to MEPC 75/4/6, annex 4	Please see MEPC 75/18, paragraph 4.4



Table 3 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
50	12 May 2022	Finnish Transport and Communications Agency (Traficom)	LanghBW BWMS	Provided (MEPC 79/INF.7)	No Active Substances used according to the communication received from the Administration of Finland in MEPC 79/INF.7	Not applicable
51	17 May 2022	Ministry of Oceans and Fisheries Republic of Korea	AQUASTAR™	Provided (MEPC 79/INF.15)	Yes, please refer to MEPC 63/2/11, annex 7	Please see MEPC 63/23, paragraph 2.7
52	22 July 2022	The Ministry of Oceans and Fisheries Republic of Korea	ARA Plus+ BWMS	Provided (MEPC 79/INF.17)	No Active Substances used according to the communication received from the Administration of the Republic of Korea in MEPC 79/INF.17	Not applicable
53	1 September 2022	Liberia Maritime Authority	BlueBallast II Plus NK-O3	Provided (MEPC 80/INF.2)	Yes, please refer to MEPC 59/2/16, annex 6	Please see MEPC 59/24, paragraph 2.8.2, and MEPC 75/18, paragraph 4.3
54	1 February 2023	Norwegian Maritime Authority	One-Pass Mode of the KBAL BWMS	Provided (MEPC 80/INF.11)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 80/INF.11	Not applicable.
55	22 February 2023	Government of the United Kingdom of Great Britain and Northern Ireland	ECS HYCHLOR 2.0 ballast water management system	Provided (MEPC 80/INF.7)	Yes, please refer to MEPC 79/4/3, annex 5	Please see MEPC 79/15, paragraph 4.9
56	9 April 2023	Ports and Maritime Organization, Islamic Republic of Iran	RADClean® BWMS	Provided (MEPC 81/INF.3)	Yes, please refer to MEPC 79/4/3, annex 4	Please see MEPC 79/15, paragraph 4.9

Table 3 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
57	20 April 2023	Norwegian Maritime Authority	Cyeco BWMS	Provided (MEPC 81/INF.24)	No Active Substances used according to the communication received from the Administration of Norway in MEPC 81/INF.24	Not applicable
58	1 December 2023	Danish Environmental Protection Agency and Danish Maritime Authority	BalClor® Smart BWMS	Provided (MEPC 81/INF.33)	Yes, please refer to MEPC 80/4/9, annex 4	Please see MEPC 80/17, paragraph 4.13
59	21 August 2023	Liberia Maritime Authority	EcoGuardian NF™ BWMS	Provided (MEPC 82/INF.6)	Yes, please refer to MEPC 80/4/9, annex 5	Please see MEPC 80/17, paragraph 4.13

**Table 4: List of type approvals for ballast water management systems that are in accordance with Guidelines (G8) (resolutions MEPC.125(53) and MEPC.174(58))\***

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
1	June 2008	Det Norske Veritas, on behalf of the Norwegian Administration	PureBallast System	Provided (MEPC 61/INF.3)	Yes, please refer to MEPC 56/2/2, annex 5	MEPC 56/23, paragraph 2.8
2	10 June 2008	Federal Maritime and Hydrographic Agency, Germany	SEDNA® Ballast Water Management System (Using Peraclean® Ocean)	Provided (MEPC 58/INF.17)	Yes, please refer to MEPC 57/2/10, annex 7	MEPC 57/21, paragraph 2.16
3	2 September 2008	Office of the Maritime Administration, Marshall Islands	NEI Treatment System VOS-2500-101	Available at request	No Active Substances used according to the communication received from the Administration of Marshall Islands (Letter of 10 December 2008)	Not applicable
4	31 December 2008	Ministry of Land, Transport and Maritime Affairs, Republic of Korea	Electro-Cleen™ System	Provided (MEPC 59/INF.6)	Yes, please refer to MEPC 58/2/7, annex 7	MEPC 58/23, paragraph 2.8
5	17 April 2009	Det Norske Veritas, on behalf of the Norwegian Maritime Directorate	OceanSaver® Ballast Water Management System	Provided (MEPC 59/INF.17 and MEPC 62/INF.15)	Yes, please refer to MEPC 58/2/8, annex 4	MEPC 58/23, paragraph 2.10
6	29 April 2009	Lloyd's Register, as delegated by the Administration of the United Kingdom	Hyde GUARDIAN™ ballast water management system	Provided (MEPC 59/INF.20)	No Active Substances used according to the communication received from the Administration of United Kingdom (please refer to MEPC 59/INF.20)	Not applicable

\* Table 4 was compiled based on information provided by the respective Administrations taking into account resolution MEPC.228(65) on *Information reporting on type approved ballast water management systems*. Systems listed in this table may have also received type approval based on the 2016 Guidelines (G8) or the BWMS Code (resolution MEPC.279(70) or MEPC.300(72)). Please refer to Table 3 for a list of ballast water management systems that have received type approvals under the 2016 Guidelines (G8) or the BWMS Code.

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
7	12 November 2009	Det Norske Veritas, on behalf of the Norwegian Maritime Directorate	OptiMarin Ballast System (OBS)	Provided (MEPC 61/INF.4)	No Active Substances used according to the communication received from the Administration of Norway (please refer to MEPC 61/INF.4)	Not applicable
8	24 November 2009	Ministry of Land, Transport and Maritime Affairs, Republic of Korea	NK-O3 BlueBallast System (Ozone)	Provided (MEPC 60/INF.14)	Yes, please refer to MEPC 59/2/16, annex 6	MEPC 59/24, paragraph 2.8.
9	4 December 2009	Ministry of Land, Transport and Maritime Affairs, Republic of Korea	GloEn-Patrol™ Ballast Water Management System	Provided (MEPC 61/2/19)	Yes, please refer to MEPC 60/2/11, annex 4	MEPC 60/22, paragraph 2.7
10	19 January 2010	Merchant Shipping Directorate of Malta	NEI Treatment System VOS-2500-101	Provided (BWM.2/Circ.25)	Please refer to circular BWM.2/Circ.25	Not applicable
11	5 March 2010	Ministry of Land, Infrastructure, Transport and Tourism of Japan	Hitachi Ballast Water Management System (ClearBallast)	Provided (MEPC 61/INF.21)	Yes, please refer to MEPC 59/2/19, annex 4	MEPC 59/24, paragraph 2.8
12	26 May 2010 and 25 March 2011	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	JFE BallastAce® Ballast Water Management System	Provided (MEPC 62/INF.25)	Yes, please refer to MEPC 60/2/12, annex 5	MEPC 60/22, paragraph 2.7
13	1 September 2010	Federal Maritime and Hydrographic Agency, Germany	CleanBallast® 500-1 ballast water management system (formerly named RWO Ballast Water Management System (CleanBallast))	Provided (MEPC 67/INF.29)	Yes, please refer to MEPC 59/2/16, annex 5	MEPC 59/24, paragraph 2.8
14	28 January 2011	China Maritime Safety Administration	BalClor™ Ballast Water Management System	Provided (MEPC 62/INF.29)	Yes, please refer to MEPC 61/2/15, annex 9	MEPC 61/24, Paragraph 2.7.3

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
15	19 April 2011	The South African Department of Transport	Resource Ballast Technologies System	Provided (MEPC 62/INF.18)	Yes, please refer to MEPC 60/2/11, annex 7	MEPC 60/22, paragraph 2.7
	Renewal 18 January 2013	The South African Department of Transport		Provided (MEPC 65/INF.26)		
16	16 February 2011	China Maritime Safety Administration	Blue Ocean Shield Ballast Water Management System	Provided (MEPC 62/INF.28)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 62/INF.28)	Not applicable
17	10 March 2011	Det Norske Veritas, on behalf of the Norwegian Maritime Directorate	PureBallst 2.0 and PureBallast 2.0 Ex	Provided (MEPC 62/INF.14)	No Active Substances used according to the communication received from the Administration of Norway (please refer to MEPC 62/INF.14)	Not applicable
18	16 March 2011	The Ministry of Land, Transport and Maritime Affairs, Republic of Korea	EcoBallast Ballast Water Management System (Hyundai Heavy Industries Co., Ltd.)	Provided (MEPC 63/INF.5)	Yes, please refer to MEPC 59/2/16, annex 8	MEPC 60/22, paragraph 2.13
19	28 March 2011	China Maritime Safety Administration	BSKY™ Ballast Water Management System	Provided (MEPC 62/INF.30)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 62/INF.30)	Not applicable
20	29 April 2011	Federal Maritime and Hydrographic Agency, Germany	Ocean Protection System® OPS-250	Provided (MEPC 67/INF.27)	No Active Substances used according to the communication received from the Administration of Germany (please refer to MEPC 67/INF.27)	Not applicable
21	6 June 2011	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	FineBallast® OZ (the Special Pipe Hybrid Ballast Water Management System combined with Ozone treatment version)	Provided (MEPC 63/INF.12)	Yes, please refer to MEPC 61/2/15, annex 6	MEPC 61/24, paragraph 2.7

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
22	27 July 2011	Federal Maritime and Hydrographic Agency, Germany	BalPure® BP-500 (subsequently changed to BALPURE® Ballast Water Management System)	Provided (MEPC 64/INF.20)	Yes, please refer to MEPC 61/2/21, annex 7	MEPC 61/24, paragraph 2.7
23	6 August 2011	Office of the Maritime Administrator, Republic of the Marshall Islands	NEI Treatment System VOS-500 to VOS-6000	Available at request	No Active Substances used according to the communication received from the Administration of Marshall Islands (Letter of 9 August 2011)	Not applicable
24	31 October 2011	The Ministry of Land, Transport and Maritime Affairs, Republic of Korea	Purimar™ System	Provided (MEPC 63/INF.6)	Yes, please refer to MEPC 62/2/18, annex 6	MEPC 62/24, paragraph 2.5
25	7 November 2011	Det Norske Veritas, on behalf of the Norwegian Maritime Directorate	OceanGuard™ Ballast Water Management System	Provided (MEPC 65/INF.2)	Yes, please refer to MEPC 61/2/21, annex 5	MEPC 61/24, paragraph 2.7
26	4 November 2011	Federal Maritime and Hydrographic Agency, Germany	Ecochlor® Ballast Water Treatment System, Series 75	Provided (MEPC 67/INF.26)	Yes, please refer to MEPC 61/2/21, annex 6	MEPC 61/24, paragraph 2.7
27	11 November 2011	The Ministry of Land, Transport and Maritime Affairs, Republic of Korea	HiBallast™ Ballast Water Management System	Provided (MEPC 63/INF.4)	Yes, please refer to MEPC 62/2/18, annex 5	MEPC 62/24, paragraph 2.5
28	22 December 2011	Det Norske Veritas, on behalf of the Norwegian Maritime Directorate	OceanSaver® Ballast Water Management System	Provided (MEPC 64/INF.4)	Yes, please refer to MEPC 58/2/8, annex 4	MEPC 58/23, paragraph 2.10

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
29	10 May 2012  Amended (1 <sup>st</sup> ) 15 January 2015  Amended (2 <sup>nd</sup> ) 19 October 2018	Hellenic Republic, Ministry of Development, Competitiveness and Shipping, General Secretariat of Shipping, Merchant Ships Inspection General Directorate, Design and Construction Directorate	ERMA FIRST BWTS    ERMA FIRST BWTS	Provided (MEPC 64/INF.26)  Amended (MEPC 68/INF.19)  Amended (MEPC 74/INF.4)	Yes, please refer to MEPC 63/2/11, annex 5	MEPC 63/23, paragraph 2.7
30	30 May 2012	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	MICROFADE™ Ballast Water Management System	Provided (MEPC 64/INF.17)	Yes, please refer to MEPC 63/2/11, annex 6	MEPC 63/23, paragraph 2.7
31	12 June 2012	China Maritime Safety Administration	Cyeco™ Ballast Water Management System	Provided (MEPC 64/INF.12)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 64/INF.12)	Not applicable
32	15 June 2012	The Ministry of Land, Transport and Maritime Affairs, Republic of Korea	AquaStar™ Ballast Water Management System (subsequently changed to AquaStar™ BWMS, MACGREGOR WATER BALLAST TREATMENT SYSTEM and AQUASTAR™)	Provided (MEPC 64/INF.18)	Yes, please refer to MEPC 63/2/11, annex 7	MEPC 63/23, paragraph 2.7
33	12 July 2012	The Ministry of Land, Transport and Maritime Affairs, Republic of Korea	ARA PLASMA BWTS Ballast Water Management System	Provided (MEPC 64/INF.33)	Yes, please refer to MEPC 61/2/15, annex 8	MEPC 61/24, paragraph 2.7

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
34	27 August 2012	Federal Maritime and Hydrographic Agency, Germany	BallastMaster ultraV 250 ballast water management system (formerly named AquaTriComb BW 250)	Provided (MEPC 67/INF.28)	No Active Substances used according to the communication received from the Administration of Germany (please refer to MEPC 67/INF.28)	Not applicable
35	20 September 2012	The Norwegian Maritime Authority	CrystalBallast® Ballast Water Management System	Provided (MEPC 65/INF.13)	No Active Substances used according to the communication received from the Administration of Norway (please refer to MEPC 65/INF.13)	Not applicable
36	7 November 2012	The Danish Maritime Authority and the Danish Nature Agency	DESMI Ocean Guard OxyClean Ballast Water Management System	Provided (MEPC 65/INF.5)	Yes, please refer to MEPC 64/2/6, annex 4	MEPC 64/23, paragraph 2.6
37	12 December 2012	The Norwegian Maritime Authority	MMC Ballast Water Management System	Provided (MEPC 66/INF.9)	No Active Substances used according to the communication received from the Administration of Norway (please refer to MEPC 66/INF.9)	Not applicable
38	20 December 2012	The Netherlands Ministry of Infrastructure and the Environment	Wärtsilä AQUARIUS® UV ballast water management system	Provided (MEPC 65/INF.11)	No Active Substances used according to the communication received from the Administration of the Netherlands (please refer to MEPC 65/INF.11)	Not applicable
39	5 February 2013	China Maritime Safety Administration	BALWAT Ballast Water Management System	Provided (MEPC 66/INF.15)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 66/INF.15)	Not applicable
40	5 June 2013	French Ministry of Ecology Sustainable Development and Energy	BIO-SEA® Ballast Water Treatment System	Provided (MEPC 66/INF.10)	No Active Substances used according to the communication received from the Administration of France (please refer to MEPC 66/INF.10)	Not applicable



Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
41	26 June 2013	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	JFE BallastAce®	Provided (MEPC 66/INF.30)	Yes, please refer to MEPC 64/2/7, annex 5	MEPC 64/23, paragraph 2.6
42	22 August 2013	China Maritime Safety Administration	HY™-BWMS	Provided (MEPC 66/INF.14)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 66/INF.14)	Not applicable
43	10 October 2013	China Maritime Safety Administration	NiBallast™ Ballast Water Management System	Provided (MEPC 66/INF.12)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 66/INF.12)	Not applicable
44	4 November 2013	China Maritime Safety Administration	Cyeco™ Ballast Water Management System	Provided (MEPC 66/INF.16)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 66/INF.16)	Not applicable
45	5 November 2013	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	FineBallast MF	Provided (MEPC 66/INF.28)	No Active Substances used according to the communication received from the Administration of Japan (please refer to MEPC 66/INF.28)	Not applicable
46	14 November 2013	The Norwegian Maritime Authority	KBAL Ballast Water Management System	Provided (MEPC 65/INF.12)	No Active Substances used according to the communication received from the Administration of Norway (please refer to MEPC 65/INF.12)	Not applicable
47	2 December 2013	China Maritime Safety Administration	Seascope Ballast Water Management System	Provided (MEPC 66/INF.13)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 66/INF.13)	Not applicable

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
48	20 December 2013	The Norwegian Maritime Authority	Trojan Marinex™ Ballast Water Management System	Provided (MEPC 67/INF.6)	No Active Substances used according to the communication received from the Administration of Norway (please refer to MEPC 67/INF.6)	Not applicable
49	24 February 2014	Federal Maritime and Hydrographic Agency (BSH)	SeaCURE® BWMS SC-1500/1	Provided (MEPC 69/INF.13)	No Active Substances used according to the communication received from the Administration of Germany (please refer to MEPC 69/INF.13)	MEPC 63/23, paragraph 2.7
50	27 March 2014	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	Miura BWMS ballast water management system	Provided (MEPC 67/INF.20)	No Active Substances used according to the communication received from the Administration of Japan (please refer to MEPC 67/INF.20)	Not applicable
51	30 April 2014	Federal Maritime and Hydrographic Agency, Germany	Cathelco Ballast Water Management System – A2	Provided (MEPC 67/INF.30)	No Active Substances used according to the communication received from the Administration of Germany (please refer to MEPC 67/INF.30)	Not applicable
52	18 June 2014	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	ECOMARINE ballast water management system	Provided (MEPC 67/INF.21)	No Active Substances used according to the communication received from the Administration of Japan (please refer to MEPC 67/INF.21)	Not applicable
53	30 June 2014	The Norwegian Maritime Authority	Alfa Laval PureBallast 3.0 Ballast Water Management System	Provided (MEPC 67/INF.5)	No Active Substances used according to the communication received from the Administration of Norway (please refer to MEPC 67/INF.5)	Not applicable
54	11 July 2014	China Maritime Safety Administration	PACT marine™ Ballast Water Management System	Provided (MEPC 68/INF.5)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 68/INF.5)	Not applicable

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
55	5 September 2014	The Danish Maritime Authority and The Danish Nature Agency	RayClean™ BWTS	Provided (MEPC 68/INF.10)	No Active Substances used according to the communication received from the Administration of Denmark (please refer to MEPC 68/INF.10)	Not applicable
56	21 October 2014	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	SKY-SYSTEM®	Provided (MEPC 68/INF.28)	Yes, please refer to MEPC 66/2/7, annex 4 and Corr.1	MEPC 66/21, paragraph 2.5
57	17 November 2014	China Maritime Safety Administration	OceanDoctor® Ballast Water Management System	Provided (MEPC 68/INF.4)	Yes, please refer to MEPC 65/2/19, annex 7	MEPC 65/22, paragraph 2.8
58	5 January 2015	The Danish Maritime Authority and The Danish Nature Agency	Bawat™ BWMS	Provided (MEPC 68/INF.9)	No Active Substances used according to the communication received from the Administration of Denmark (please refer to MEPC 68/INF.9)	Not applicable
59	27 January 2015	China Maritime Safety Administration	AHEAD®-BWMS ballast water management system	Provided (MEPC 69/INF.2)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 68/INF.2)	Not applicable
60	6 February 2015	United Kingdom, Maritime & Coastguard Agency	Coldharbour GLD™ Ballast Water Management System, incorporating types SeaGuardian™ IGG500 to IGG6000	Provided (MEPC 68/INF.27)	No Active Substances used according to the communication received from the Administration of the United Kingdom (please refer to MEPC 68/INF.27)	Not applicable
61	28 February 2015	China Maritime Safety Administration	YP-BWMS ballast water management system	Provided (MEPC 69/INF.5)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 69/INF.5)	Not applicable

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
62	8 May 2015	Ministry of Oceans and Fisheries of Republic of Korea	EcoGuardian™ Ballast Water Management System	Provided (MEPC 69/INF.31)	No Active Substances used according to the communication received from the Administration of the Republic of Korea (please refer to MEPC 69/INF.31)	MEPC 65/22, paragraph 2.8
63	8 September 2015	Ministry of Oceans and Fisheries of the Republic of Korea	BlueZone™ Ballast Water Management System	Provided (MEPC 69/INF.32)	No Active Substances used according to the communication received from the Administration of the Republic of Korea (please refer to MEPC 69/INF.32)	MEPC 67/20, paragraph 2.6
64	12 September 2015	China Maritime Safety Administration	NiBallast™ Ballast Water Management System	Provided (MEPC 69/INF.3)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 69/INF.3)	Not applicable
65	19 November 2015	Netherlands Shipping Inspectorate, Ministry of Infrastructure and the Environment	Van Oord Ballast Water Management System	Provided (MEPC 69/INF.15)	No Active Substances used according to the communication received from the Administration of Norway (please refer to MEPC 69/INF.15)	Please see MEPC 65/22, paragraph 2.5
66	21 December 2015	China Maritime Safety Administration	Seascope® Ballast Water Management System	Provided (MEPC 69/INF.4)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 69/INF.4)	Not applicable
67	23 December 2015	French Ministry of Ecology Sustainable Development and Energy	BIO-SEA® Ballast Water Treatment System (BWTS); Models BIO-SEA®30-55, BIO-SEA®30-87, BIO-SEA®60-55, BIO-SEA®60-87 and BIO-SEA®90-87	Provided (MEPC 70/INF.24)	No Active Substances used according to the communication received from the Administration of France (please refer to MEPC 70/INF.24)	Not applicable

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
68	11 January 2016	China Maritime Safety Administration	LeesGreen® Ballast Water Management System	Provided (MEPC 70/INF.5)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 70/INF.5)	Not applicable
69	15 April 2016	China Maritime Safety Administration	PACT Marine™ Ballast Water Management System	Provided (MEPC 70/INF.4)	No Active Substances used according to the communication received from the Administration of China (please refer to MEPC 70/INF.4)	Not applicable
70	27 July 2016	Singapore	Semb-Eco LUV 500 ballast water management system	Provided (MEPC 70/INF.22)	No Active Substances used according to the communication received from the Administration of Singapore (please refer to MEPC 70/INF.22)	Not applicable
71	12 January 2017	Singapore	Semb-Eco LUV 500 & Semb-Eco LUV 1500 ballast water management system	Provided (MEPC 71/INF.12)	No Active Substances used according to the communication received from the Administration of Singapore (please refer to MEPC 71/INF.12)	Not applicable
72	13 January 2017	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	KURITA BWMS (subsequently changed to Senza BWMS)	Provided (MEPC 71/INF.26)	Yes, please refer to MEPC 67/2/4, annex 6	Please see MEPC 67/20, paragraph 2.6
73	19 March 2017	Netherlands Shipping Inspectorate, Ministry of Infrastructure and the Environment	Damen InvaSave 300	Provided (MEPC 71/INF.4)	No Active Substances used according to the communication received from the Administration of the Netherlands (please refer to MEPC 71/INF.4)	Not applicable

Table 4 (continued)

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate	Active Substance employed	MEPC report granting Final Approval
74	30 March 2017	Inspection and Measurement Division, Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism of Japan	ATPS-BLUE <sub>sys</sub>	Provided (MEPC 71/INF.27)	Yes, please refer to MEPC 69/4/5, annex 6	Please see MEPC 69/21, paragraph 4.6
75	13 November 2017	Singapore	Semb-Eco LUV 250, Semb-Eco LUV 500, Semb-Eco LUV 750, Semb-Eco LUV 1000 and Semb-Eco LUV 1500 ballast water management system	Provided (MEPC 72/INF.2)	No Active Substances used according to the communication received from the Administration of Singapore (please refer to MEPC 72/INF.2)	Not applicable
76	2 February 2018	Norwegian Maritime Authority	PureBallast 3.2 and PureBallast 3.2 Compact Flex ballast water management system	Provided (MEPC 72/INF.19)	No Active Substances used according to the communication received from the Administration of Singapore (please refer to MEPC 72/INF.19)	Not applicable
77	16 March 2018	Viet Nam Register, the Vietnam Ministry of Transport	TLC-BWM. Ballast Water Management System	Provided (MEPC 75/INF.2)	No Active Substances used according to the communication received from the Administration of Vietnam, please see MEPC 75/INF.2	Not applicable
78	12 April 2018	French Ministry of Ecology, Sustainable Development and Energy	BIO-SEA® B ballast water management system (BWMS); Models BIO SEA B01-0055 to BIO-SEA B14 2000	Provided (MEPC 73/INF.7)	No Active Substances used according to the communication received from the Administration of France (please refer to MEPC 73/INF.7)	Not applicable

**Note: all lists above updated in October 2024.**