



IMO

E

Ref. T5/1.22

BWM.2/Circ.23
24 September 2009

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

**List of ballast water management systems that make use of Active Substances
which received Basic and Final Approvals**

1 The Ballast Water Management Convention (BWM Convention) provides in its regulation D-3.2 that ballast water management systems which make use of Active Substances, to comply with the Convention, shall be approved by IMO based on a procedure developed by the Organization. According to regulation A-1.7 of the same Convention, an Active Substance is a substance or organism, including a virus or a fungus, that has a general or specific action on or against harmful aquatic organisms and pathogens.

2 The Marine Environment Protection Committee (MEPC), at its fifty-third session (18 to 22 July 2005), adopted the "Procedure for approval of ballast water management systems that make use of Active Substances (G9)" by resolution MEPC.126(53). At the same session, MEPC established a Technical Group (GESAMP-Ballast Water Working Group) under the auspices of GESAMP*, to evaluate Active Substances and the relevant systems and advise the MEPC accordingly.

3 MEPC 57 (31 March to 4 April 2008) adopted resolution MEPC.169(57), which revokes resolution MEPC.126(53) and contains the revised "Procedure for approval of ballast water management systems that make use of Active Substances (G9)".

4 Section 8 of Procedure (G9) sets out the methodology to be followed for the two-tier approval of ballast water management systems that make use of Active Substances and requests IMO to record the Basic and Final Approvals and to circulate the list once a year.

5 Following the consideration of the relevant reports of the GESAMP-BWWG, the MEPC, at its fifty-ninth session (13 to 17 July 2009), granted three Basic Approvals and four Final Approvals to the ballast water management systems that make use of Active Substances. The annexes to this circular contain relevant information on the ballast water management systems that received Basic and Final Approvals from March 2006 until December 2009.

6 This circular supersedes Circular BWM.2/Circ.16.

* GESAMP stands for IMO/FAO/UNESCO-IOC/WMO/IAEA/UN/UNEP/UNIDO Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection.

7 Information regarding the systems that received Type Approval Certification can be found in the IMO website at <http://www.imo.org/home.html>.

8 Member Governments are invited to bring this circular to the attention of all the parties concerned.

ANNEX 1

**LIST OF BALLAST WATER MANAGEMENT SYSTEMS THAT MAKE USE OF ACTIVE SUBSTANCES WHICH RECEIVED
BASIC APPROVAL IN ACCORDANCE WITH PROCEDURE (G9)**

Name of the system and MEPC document related to the proposal for Basic Approval	Name of manufacturer	Relevant GESAMP-Ballast Water Working Group report	Date of Basic Approval	Specifications
1. Peraclean® Ocean MEPC 53/2/12 (Germany)	Degussa Gmbh, Germany	MEPC 54/2/12, annex 5	24 March 2006 (MEPC 54)	Flag State Administration was invited to authorize onboard testing only when the concerns identified in annex 5 of the Report of the first meeting of the GESAMP-Ballast Water Working Group (MEPC 54/2/12) had been addressed to its complete satisfaction.
2. Electro-Clean (electrolytic disinfection) system (subsequently changed to Electro-Cleen™) MEPC 54/2/3 (The Republic of Korea)	Techcross Ltd. and Korea Ocean Research and Development Institute (KORDI)	MEPC 54/2/12, annex 6	24 March 2006 (MEPC 54)	Flag State Administration was invited to authorize onboard testing only when the concerns identified in annex 6 of the Report of the first meeting of the GESAMP-Ballast Water Working Group (MEPC 54/2/12) had been addressed to its complete satisfaction.
3. Special Pipe Ballast Water Management System (combined with Ozone treatment) MEPC 55/2 (Japan)	Japan Association of Marine Safety (JAMS)	MEPC 55/2/16, annex 5	13 October 2006 (MEPC 55)	Flag State Administration was invited to take into account all the recommendations indicated in annex 5 of the Report of the second meeting of the GESAMP-Ballast Water Working Group (MEPC 55/2/16) during further development of the system.
4. EctoSys™ electrochemical system MEPC 55/2/4 (Sweden)	Permascand AB, Sweden, subsequently acquired by RWO GmbH, Germany	MEPC 55/2/16, annex 7	13 October 2006 (MEPC 55)	Flag State Administration was invited to take into account all the recommendations indicated in annex 7 of the Report of the second meeting of the GESAMP-Ballast Water Working Group (MEPC 55/2/16) during further development of the system.

**LIST OF BALLAST WATER MANAGEMENT SYSTEMS THAT MAKE USE OF ACTIVE SUBSTANCES WHICH RECEIVED
BASIC APPROVAL IN ACCORDANCE WITH PROCEDURE (G9) (continued)**

Name of the system and MEPC document related to the proposal for Basic Approval	Name of manufacturer	Relevant GESAMP-Ballast Water Working Group report	Date of Basic Approval	Specifications
5. PureBallast System MEPC 55/2/5 (Sweden)	Alfa Laval/Wallenius Water AB	MEPC 56/2/2, annex 5	13 July 2007 (MEPC 56)	
6. NK Ballast Water Treatment System (subsequently changed to NK-O3 BlueBallast System (Ozone)) MEPC 55/2/3 and MEPC 55/2/27 (The Republic of Korea)	NK Company Ltd., the Republic of Korea	MEPC 56/2/2, annex 6	13 July 2007 (MEPC 56)	Flag State Administration was invited to take into account all the recommendations indicated in annex 6 of the Report of the third meeting of the GESAMP-Ballast Water Working Group (MEPC 56/2/2) during further development of the system.
7. Hitachi Ballast Water Purification System (ClearBallast) MEPC 57/2/2 (Japan)	Hitachi, Ltd. /Hitachi Plant technologies, Ltd.	MEPC 57/2, annex 5	4 April 2008 (MEPC 57)	Flag State Administration was invited to take into account all the recommendations indicated in annex 5 of the Report of the fourth meeting of the GESAMP-Ballast Water Working Group (MEPC 57/2) during further development of the system.
8. Resource Ballast Technologies System MEPC 56/2/3 (South Africa)	Resource Ballast Technologies (Pty) Ltd.	MEPC 57/2/10, annex 5	4 April 2008 (MEPC 57)	Flag State Administration was invited to take into account all the recommendations indicated in annex 5 of the Report of the fifth meeting of the GESAMP-Ballast Water Working Group (MEPC 57/2/10) during further development of the system.

**LIST OF BALLAST WATER MANAGEMENT SYSTEMS THAT MAKE USE OF ACTIVE SUBSTANCES WHICH RECEIVED
BASIC APPROVAL IN ACCORDANCE WITH PROCEDURE (G9) (continued)**

Name of the system and MEPC document related to the proposal for Basic Approval	Name of manufacturer	Relevant GESAMP-Ballast Water Working Group report	Date of Basic Approval	Specifications
9. GloEn-Patrol™ Ballast Water Management System MEPC 57/2/4 (The Republic of Korea)	Panasia Co., Ltd.	MEPC 57/2/10, annex 6	4 April 2008 (MEPC 57)	Flag State Administration was invited to take into account all the recommendations indicated in annex 6 of the Report of the fifth meeting of the GESAMP-Ballast Water Working Group (MEPC 57/2/10) during further development of the system.
10. OceanSaver® Ballast Water Management System (OS BWMS) MEPC 57/2/6 (Norway)	MetaFil AS	MEPC 57/2/10, annex 8	4 April 2008 (MEPC 57)	Flag State Administration was invited to take into account all the recommendations indicated in annex 8 of the Report of the fifth meeting of the GESAMP-Ballast Water Working Group (MEPC 57/2/10) during further development of the system.
11. TG Ballastcleaner and TG Environmentalguard System MEPC 57/2/8 (Japan)	The Toagosei Group (TG Corporation, Toagosei Co. Ltd. and Tsurumi Soda Co. Ltd.)	MEPC 58/2/7, annex 5	10 October 2008 (MEPC 58)	Flag State Administration was invited to take into account all the recommendations indicated in annex 5 of the Report of the sixth meeting of the GESAMP-Ballast Water Working Group (MEPC 58/2/7) during further development of the system.
12. Greenship Sedinox Ballast Water Management System MEPC 57/2/7 (The Netherlands)	Greenship Ltd	MEPC 58/2/7, annex 6	10 October 2008 (MEPC 58)	Flag State Administration was invited to take into account all the recommendations indicated in annex 6 of the Report of the sixth meeting of the GESAMP-Ballast Water Working Group (MEPC 58/2/7) during further development of the system.

**LIST OF BALLAST WATER MANAGEMENT SYSTEMS THAT MAKE USE OF ACTIVE SUBSTANCES WHICH RECEIVED
BASIC APPROVAL IN ACCORDANCE WITH PROCEDURE (G9) (continued)**

Name of the system and MEPC document related to the proposal for Basic Approval	Name of manufacturer	Relevant GESAMP-Ballast Water Working Group report	Date of Basic Approval	Specifications
13. Ecochlor® Ballast Water Treatment System MEPC 58/2/2 (Germany)	Ecochlor, INC, Acton (USA)	MEPC 58/2/8, annex 5	10 October 2008 (MEPC 58)	Flag State Administration was invited to take into account all the recommendations indicated in annex 5 of the Report of the seventh meeting of the GESAMP-Ballast Water Working Group (MEPC 58/2/8) during further development of the system.
14. Blue Ocean Shield Ballast Water Management System MEPC 59/2/2 (China)	China Ocean Shipping (Group) Company (COSCO)	MEPC 59/2/16, annex 7	17 July 2009 (MEPC 59)	Flag State Administration was invited to take into account all the recommendations indicated in annex 7 of the Report of the eighth meeting of the GESAMP-Ballast Water Working Group (MEPC 59/2/16) during further development of the system.
15. Hyundai Heavy Industries Co., Ltd. (HHI) Ballast Water Management System (EcoBallast) MEPC 59/2/4 (The Republic of Korea)	Hyundai Heavy Industries Co., Ltd. the Republic of Korea	MEPC 59/2/16, annex 8	17 July 2009 (MEPC 59)	Flag State Administration was invited to take into account all the recommendations indicated in annex 8 of the Report of the eighth meeting of the GESAMP-Ballast Water Working Group (MEPC 59/2/16) during further development of the system.
16. AquaTriComb™ Ballast Water Treatment System MEPC 59/2/8 (Germany)	Aquaworx ATC GmbH	MEPC 59/2/19, annex 6	17 July 2009 (MEPC 59)	Flag State Administration was invited to take into account all the recommendations indicated in annex 6 of the Report of the ninth meeting of the GESAMP-Ballast Water Working Group (MEPC 59/2/19) during further development of the system.

ANNEX 2

**LIST OF BALLAST WATER MANAGEMENT SYSTEMS THAT MAKE USE OF ACTIVE SUBSTANCES WHICH RECEIVED
FINAL APPROVAL IN ACCORDANCE WITH PROCEDURE (G9)**

Name of the system and MEPC document related to the proposal for Final Approval	Name of manufacturer	Relevant GESAMP-Ballast Water Working Group report	Date of Final Approval	Specifications
1. PureBallast System MEPC 56/2/1 (Norway)	Alfa Laval/Wallenius Water AB	MEPC 56/2/2, annex 5	13 July 2007 (MEPC 56)	Flag State Administration was invited to verify that the concerns raised in annex 5 of the Report of the third meeting of the GESAMP-Ballast Water Working Group (MEPC 56/2/2) with regard to ship and crew safety have been fully addressed prior to the issuance of Type Approval certificate.
2. SEDNA® Ballast Water Management System (Using Peraclean® Ocean) MEPC 57/2/5 (Germany)	Degussa Gmbh, Germany	MEPC 57/2/10, annex 7	4 April 2008 (MEPC 57)	Flag State Administration was invited to take into account all the recommendations contained in annex 7 of the Report of the fifth meeting of the GESAMP-Ballast Water Working Group (MEPC 57/2/10) prior to the issuance of Type Approval Certificate.
3. Electro-Cleen™ System MEPC 58/2 (The Republic of Korea)	Techcross Ltd. and Korea Ocean Research and Development Institute (KORDI)	MEPC 58/2/7, annex 7	10 October 2008 (MEPC 58)	n/a
4. OceanSaver® Ballast Water Management System (OS BWMS) MEPC 58/2/1 (Norway)	MetaFil AS	MEPC 58/2/8, annex 4	10 October 2008 (MEPC 58)	Flag State Administration was invited to verify that all the recommendations contained in annex 4 of the Report of the seventh meeting of the GESAMP-BWWG (MEPC 58/2/8) have been fully addressed prior to the issuance of a Type Approval Certificate.

**LIST OF BALLAST WATER MANAGEMENT SYSTEMS THAT MAKE USE OF ACTIVE SUBSTANCES WHICH RECEIVED
FINAL APPROVAL IN ACCORDANCE WITH PROCEDURE (G9) (continued)**

Name of the system and MEPC document related to the proposal for Final Approval	Name of manufacturer	Relevant GESAMP-Ballast Water Working Group report	Date of Final Approval	Specifications
5. RWO Ballast Water Management System (CleanBallast) MEPC 59/2 (Germany)	RWO GmbH Marine Water Technology, Germany	MEPC 59/2/16, annex 5	17 July 2009 (MEPC 59)	Flag State Administration was invited to verify that all the recommendations contained in annex 5 of the Report of the eighth meeting of the GESAMP-BWWG (MEPC 59/2/16) have been fully addressed prior to the issuance of a Type Approval Certificate.
6. NK-O3 BlueBallast System (Ozone) MEPC 59/2/3 (the Republic of Korea)	NK Company Ltd., the Republic of Korea	MEPC 59/2/16, annex 6	17 July 2009 (MEPC 59)	Flag State Administration was invited to verify that all the recommendations contained in annex 6 of the Report of the eighth meeting of the GESAMP-BWWG (MEPC 59/2/16) have been fully addressed prior to the issuance of a Type Approval Certificate.
7. Hitachi Ballast Water Purification System (ClearBallast) MEPC 59/2/5 (Japan)	Hitachi, Ltd. /Hitachi Plant technologies, Ltd.	MEPC 59/2/19, annex 4	17 July 2009 (MEPC 59)	Flag State Administration was invited to verify that all the recommendations contained in annex 4 of the Report of the ninth meeting of the GESAMP-BWWG (MEPC 59/2/19) have been fully addressed prior to the issuance of a Type Approval Certificate.
8. Greenship Sedinox Ballast Water Management System, MEPC 59/2/6 (the Netherlands)	Greenship Ltd	MEPC 59/2/19, annex 5	17 July 2009 (MEPC 59)	Flag State Administration was invited to verify that all the recommendations contained in annex 5 of the Report of the ninth meeting of the GESAMP-BWWG (MEPC 59/2/19) have been fully addressed prior to the issuance of a Type Approval Certificate.