

**Table (1) – List of ballast water management systems that make use of Active Substances
which received Basic Approval from IMO***

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

Table 1 (continue)

	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
15	Hyundai Heavy Industries Co., Ltd. (HHI) Ballast Water Management System (EcoBallast), the Republic of Korea	Hyundai Heavy Industries Co., Ltd. the Republic of Korea	17 July 2009
16	AquaTriComb TM Ballast Water Treatment System, Germany	Aquaworx ATC GmbH	17 July 2009

*More comprehensive information regarding these systems is available in document BWM.2/Circ.23.

**Table (2) – List of ballast water management systems that make use of Active Substances
which received Final Approval from IMO***

	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
2	SEDNA® Ballast Water Management System (Using Peraclean® Ocean), Germany	Degussa Gmbh, Germany	4 April 2008
3	Electro-Cleen™ System, the Republic of Korea	Techcross Ltd. and Korea Ocean Research and Development Institute (KORDI)	10 October 2008
4	OceanSaver® Ballast Water Management System (OS BWMS), Norway	MetaFil AS	10 October 2008
5	Ballast Water Management System (CleanBallast), Germany	RWO GmbH Marine Water Technology, Germany	17 July 2009
6	NK-O3 BlueBallast System (Ozone), the Republic of Korea	NK Company Ltd., the Republic of Korea	17 July 2009
7	Hitachi Ballast Water Purification System (ClearBallast), Japan	Hitachi, Ltd. /Hitachi Plant technologies, Ltd.	17 July 2009
8	Greenship Sedinox Ballast Water Management System, the Netherlands	Greenship Ltd	17 July 2009

*More comprehensive information regarding these systems is available in document BWM.2/Circ.23.

Table (3) – List of ballast water management systems that make use of Active Substances which received Type Approval Certification by their respective Administrations, following Final Approval by IMO (resolution MEPC 175 (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, as delegated by the Norwegian Administration	PureBallast System	To be provided	free radicals Cl ₂ -, ClBr-, Br ₂ - and CO ₃ - (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	PERACLEAN® Ocean (refer to MEPC 57/2/10 annex 7)	MEPC 57/21, paragraph 2.16
3	31 December 2008	Ministry of Land, Transport and Maritime Affairs, the Republic of Korea	Electro-Clean™ System	Provided	HOCl (OCl-), HOBr (OBr-), O ₃ (H ₂ O ₂), OH- (refer to MEPC 58/2/7, annex 7)	MEPC 58/23, paragraph 2.8
4	17 April 2009	Det Norske Veritas, as delegated by the Norwegian Administration	OceanSaver® Ballast Water Management System (OS BWMS)	Provided	HClO, Cl ₂ , O ₃ , H ₂ O ₂ , ClO ₂ and ClO ⁻ (refer to MEPC 58/2/8, annex 4)	MEPC 58/23, paragraph 2.10

* This list was compiled based on the information provided by the respective Administrations.

Table (4) – List of ballast water management systems that DO NOT use Active Substances certified by their respective Administrations (resolution MEPC 175 (58))*

	Approval Date	Name of the Administration	Name of the ballast water management system	Copy of Type Approval Certificate
1	2 September 2008	Office of the Maritime Administration, Marshall Islands	NEI Treatment System VOS-2500-101	Provided
2	29 April 2009	Lloyd's Register, as delegated by the Administration of the United Kingdom	the Hyde GUARDIAN™ ballast water management system	Provided

* This list was compiled based on the information provided by the respective Administrations.

Note: lists above updated September 2009.