

Ballast Water Update – EIF 08. Sept.

USCG Regulatory Update

Compliance Date

	Vsl BW capacity*	Date constructed	Vessel's compliance date
New vessels	All	On or after December 1, 2013	On delivery
Existing vessels	Less than 1500m ³ or Greater than 5000m ³	Before December 1, 2013	1st scheduled drydocking after January 1, 2016
	1500-5000m ³		1st scheduled drydocking after January 1, 2014

***"Ballast Water Capacity"** means the total volumetric capacity of any tanks, spaces or compartments on a ship used for carrying, loading or discharging Ballast Water, including any multi-use tank, space or compartment designed to allow carriage of Ballast Water.

System Approval

There are **currently five systems** that have **gained USCG Type approval**:

Manufacturer	Model	Treatment Type	Capacity (m ³ /h)
Optimarin AS	OBS/OBS Ex	UV	Up to 3,000
Alfa Laval AS	Pure Ballast 3	UV	100 to 3,000
OceanSaver AS	BWTS MK II	Electro-chlorination	200 to 7,200
Sunrui Environmental Engineering	BalChlor	Electro-chlorination	100 to 8,500
Ecochlor Inc	Ecochlor	Chlorine Dioxide	250 to 16,200

There are **two systems** with **USCG Type approval pending** and expected for late 2017:

Manufacturer	Model	Treatment Type	Capacity (m ³ /h)
Evoqua Water Technologies LLC	SeaCure	Electrolysis	1,500
Erma First	Erma First	Electro-chlorination	50 to 3,000

There are currently further **nine systems** that are in progress with **testing for USCG Type approval** (expected 2018/2019):

Manufacturer	Model	Treatment Type	Capacity (m ³ /h)
Bio-UV SAS	Bio Sea	UV	75 – 2,000
Cathelco Ltd	Cathelco Evolution	UV	75 – 2,000
Elite Marine Ltd	Seascape	UV	150 to 5,000
NEI Treatment Systems LLC	VOS	Deoxygenation	300 to 6,800
Panasia Co.Ltd.	GloEn Patrol	UV + Chemical	150 to 6,000
Qingdao Headway Technology Co Ltd	OceanGuard	Electro-Catalysation	900 to 9,350
Techcross Inc	Electro Clean	Electrolysis/Electro-chlorination	300

Wärtsilä Water Systems	Wärtsilä Aquarius	UV	various
Wuxi Brightsky Electronic Co Ltd	BSKY	UV	100 to 6,000

Extensions

Some Members have contacted VDR and expressed concern that the USCG is not issuing extensions anymore. As mentioned in the various statements in VDR-Intern, it is our understanding that the USCG will continue to grant extensions however shipowners will now have to justify why they cannot fit one of the USCG approved systems. This justification will have to include supporting documentation providing such information as the evaluation of BWMS, discussions with manufacturers, lack of dry-docking availability, installation problems, operational challenges, etc.

As all **systems based on ultraviolet irradiation** the system's efficiency is dependent on the UV-transmittance of the ballast water taken. In case of very low UV-transmittance, the system capacity has to be limited thus lengthening the time for ballasting or de-ballasting. Additionally, systems based on ultraviolet irradiation have a **hold time** which is imposing an additional operational limitation.

All systems based on **electrolysis** are producing **hydrogen** as a by-product. This hydrogen has to be ventilated to an ex-proof location outside of the engine room, where the ballast water management system needs to be installed. The vessels normally do not have any ex-proof location where the hydrogen can be vented towards the environment, safely.

There is no risk assessment available in case of malfunction of the system, neither by the classification societies nor by the manufacturer. Additionally, there is no risk assessment available from the site of the terminals.

Emergency Drydocking vs. Scheduled Drydocking

CG-OES Policy Letter, No. 13-01, Revision 2 under Section 5. Original compliance date & first schedule drydocking:

„Underwater inspection in lieu of dry docking is not considered the first scheduled dry-docking.

Emergency repairs are not considered the first scheduled drydocking.

However, if this drydocking satisfies the flag for endorsing the Certificate of Inspection, passenger ship safety certificate, cargo ship safety certificate, or cargo ship safety construction certificate as the required survey of the bottom of the ship, then this drydocking date is considered the first scheduled drydocking.“

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Requirements with EIF

1. Have on board and implement an **approved BWM Plan** (BWMP) that complies with Regulation B-1. The BWMP is required to be ship specific;
2. **Record as per Regulation B-2 all ballast water operations in a BWM Record Book** (BWRB) containing at least the information specified in appendix II of the BWM Convention, recommended is the use of the more detailed **“Ballast Water Reporting Form” as per Appendix I of Assembly Resolution A.868(20)**;
3. Be subject to BWM surveys in accordance with Regulation E-1 and have on board a valid International Ballast Water Management Certificate (IBWMC) if the ship is equal to or above 400 GT;
4. Comply with the required ballast water management standard in accordance with the implementation schedule defined in Regulation B-3 and the amendments agreed by IMO MEPC 71 for adoption at MEPC 72.

Ballastwater Exchange

From 08. Sept. 2017 all ships must conduct BWE in accordance with Regulation B-4:

1. A ship conducting Ballast Water exchange to meet the standard in regulation D-1 shall:
 1. whenever possible, conduct such Ballast Water exchange at least 200 nautical miles from the nearest land and in water at least 200 metres in depth, taking into account the Guidelines developed by the Organization;
 2. in cases where the ship is unable to conduct Ballast Water exchange in accordance with paragraph 1.1, such Ballast Water exchange shall be conducted taking into account the Guidelines described in paragraph 1.1 and as far from the nearest land as possible, and in all cases at least 50 nautical miles from the nearest land and in water at least 200 metres in depth.

2. In sea areas where the distance from the nearest land or the depth does not meet the parameters described in paragraph 1.1 or 1.2, the port State may designate areas, in consultation with adjacent or other States, as appropriate, where a ship may conduct Ballast Water exchange, taking into account the Guidelines described in paragraph 1.1.*
3. **A ship shall not be required to deviate from its intended voyage, or delay the voyage**, in order to comply with any particular requirement of paragraph 1.
4. A ship conducting Ballast Water exchange shall not be required to comply with paragraphs 1 or 2, as appropriate, if the master reasonably decides that such exchange would threaten the safety or stability of the ship, its crew, or its passengers because of adverse weather, ship design or stress, equipment failure, or any other extraordinary condition.
5. **When a ship is required to conduct Ballast Water exchange and does not do so in accordance with this regulation, the reasons shall be entered in the Ballast Water Record Book.**

* **Ref. BWM.2 Circular:** In cases of not sufficient water depth the ship is neither forced to deviate from its intended route nor to install a BWMTS before its IOPP renewal date.

Revised IMO Compliance Schedule with amendments to Regulation B-3 (to be finally approved at MEPC72 in May 2018)

- New ships **constructed on or after 8 September 2017** shall install a BWMTS on delivery
- Existing ships **constructed before September 8, 2017**, shall install a BWMTS at:
 - the **first MARPOL IOPP renewal survey after 8 September 2017** if this renewal survey will be completed on or after 8 September 2019 or a renewal has been completed on or after 8 September 2014 but prior to 8 September 2017
 - the **second IOPP renewal survey after 8 September 2017** if the first renewal survey is completed between 8 Sept 2017 and 8 September 2019, provided that the previous conditions are not met

New Code for Approval of BWMTS (revised 2016 G8)

The comprehensive revision of the BWMTS-System approval guideline G8, following the stringent USCG testing requirements, has been finally approved by IMO MEPC71. All new installed systems after 20. Oct. 2020 have to comply with the new Code. All manufacturers with USCG testing could start immediately to approve their systems according the new Code.

Shipowners installing systems before 28 October 2020 may select an appropriate system for their ship from systems that have been approved in accordance with either:

1. The new BWMS Code; or
2. The 2016 G8 Guidelines (these being the latest and most robust approval standards developed by IMO); or
3. The earlier G8 Guidelines adopted by resolution MEPC.174(58), **provided the system is also type approved by the United States Coast Guard (USCG)**

For further informations please refer to the ICS BW-FAQ under [http://www.ics-shipping.org/docs/default-source/resources/environmental-protection/ballast-water-management---frequently-asked-questions-\(faqs\).pdf?sfvrsn=4](http://www.ics-shipping.org/docs/default-source/resources/environmental-protection/ballast-water-management---frequently-asked-questions-(faqs).pdf?sfvrsn=4)

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