



## Client Alert 15-2017

June 13, 2017

### U.S. Ballast Water Management Update

### Type Approval of Treatment Systems, Inspections and Enforcement by U.S. Coast Guard

#### U.S. Coast Guard Type Approval of fourth ballast water treatment system

The U.S. Coast Guard Marine Safety Center (MSC) recently issued the a U.S. Coast Guard Ballast Water Management (Treatment) System Type Approval Certificate to **Sunrui Marine Environment Engineering Co., Ltd.** after a detailed review of the manufacturer’s type approval application determined that the system met the requirements of 46 CFR 162.060.

This brings the total number of U.S. Coast Guard type-approved ballast water treatment systems to four. Two additional manufacturers have type approval applications under review at the MSC. Details of all type-approved and pending manufacturers/applications can be viewed [here](#) .

We take this opportunity to remind our clients that unless a valid extension has been issued by the U.S. Coast Guard, vessels that have passed their compliance dates under 33 CFR 151.2035(b) are required to use a type-approved or Alternate Management System (AMS) ballast water treatment system when discharging ballast into U.S. territorial waters (12 miles). The same vessels are also required to use their treatment systems (as designed) when taking ballast into their tanks, before proceeding towards a US port.

Compliance dates, as previously stated in our Client Alert 32-2013, are as follows:

**Table 151.2035(b) - Implementation Schedule for Approved Ballast Water Management Methods**

	Vessels’ Ballast Water Capacity	Date Constructed (Keel Laid)	Vessels’ Compliance Date
<b>New Vessels</b>	All	On or after 01 December 2013	On Delivery
<b>Existing Vessels</b>	Less than 1500 M3	Before 01 December 2013	First scheduled drydocking after 01 January 2016
	1500-5000 M3	Before 01 December 2013	First scheduled drydocking after 01 January 2014
	Greater than 5000 M3	Before 01 December 2013	First scheduled drydocking after 01 January 2016

**ECM Corporate Headquarters**

1 Selleck Street— Suite 1C  
Norwalk, CT 06855, USA

24 Hr. Tel: 1.203.857.0444 email: [ecm@ecmmaritime.com](mailto:ecm@ecmmaritime.com)

Fax: 1.203.857.0428 website: [www.ecmmaritime.com](http://www.ecmmaritime.com)



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**Inspections and Enforcement by US Coast Guard**

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## Inspections and Enforcement

The U.S. Coast Guard has increased their focus on ballast water management compliance in U.S. ports from the beginning of this year, following the type approval of the first two ballast water treatment systems in December 2016. With a third and fourth system gaining type approval, this scrutiny is bound to increase. As mentioned in our 2017 Spring *NEWSLINE*, at least one vessel has already been found to be in violation of the U.S. Ballast Water Discharge Standard and had a [penalty assessed under the National Invasive Species Act \(NISA\)](#).

## Selection of ballast water treatment systems

As explained in our Client Alert 05-2017, operators intending to install a treatment system on a vessel that is not past its compliance date should first evaluate whether a U.S. Coast Guard type-approved treatment system is available for the vessel. If it is determined that such a system is not available, an AMS can be installed before the vessel's compliance date.

## Notes

i) When evaluating one or more of the four type-approved treatment systems, it is important to note that the U.S. Coast Guard has granted their type approval to specific models and in some cases, specified certain operational limitations which must be adhered to in order to maintain the approval. In order to provide our clients with more information when reviewing the specifications of each system, we have appended the U.S. Coast Guard Certificates of Approval for each of the four type-approved treatment systems with this Alert.

ii) Once installed, an AMS can be used for up to five years after the vessel's compliance date OR extended compliance date (if an extension has been issued), whichever is later.

Please direct your comments and/or questions to [ecm@ecmmaritime.com](mailto:ecm@ecmmaritime.com)

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U. S. Department of Homeland Security  
**United States Coast Guard**  
**Certificate of Approval**

Coast Guard Approval Number: 162.060/1/0

Expires: 02 December 2021

BALLAST WATER MANAGEMENT SYSTEM  
Filtration/Ultraviolet

Optimarin AS  
Sjoveien 34  
4315 Sandnes NORWAY

Optimarin OBS/OBS Ex

This is to certify that the above listed BWMS with the listed treatment capacities has been satisfactorily examined and tested by Independent Lab DNV GL in accordance with the requirements contained in 46 CFR 162.060. The system shall be installed and operated in accordance with the manufacturer's listed Operation, Maintenance, and Safety Manual for each model.

Capacities:

167/334/500/667/834/1000/1167/1334/1500/1667/1834/2000/2167/2334/2500/2667/2834/3000 m3/h

OBS: Optimarin OMS Manual 105, Rev. 3, Dated 02 November 2016

OBS Ex: Optimarin OMS Manual 204, Rev. 3, Dated 02 November 2016

Operational Limitations:

Salinity: Not Applicable  
Temperature: 0 - 55 Degrees C  
Hold Time: >3 days  
Filter Pressure: >1.5 Bar  
UV-Intensity: >600 W/m2

The BWMS does not meet the requirements of 46 CFR 111.105 and may not be installed in hazardous locations on a U.S. flag vessel. The OBS Ex model may be installed in hazardous locations on a foreign flag vessel subject to approval of the foreign administration.

The BWMS must be marked in accordance with 46 CFR 162.060-22.

A copy of this Type Approval Certificate shall be carried on board a vessel fitted with the ballast water management system at all times.

\*\*\* End \*\*\*

THIS IS TO CERTIFY THAT the above named manufacturer has submitted to the undersigned satisfactory evidence that the item specified herein complies with the applicable laws and regulations as outlined on the reverse side of this Certificate, and approval is hereby given. This approval shall be in effect until the expiration date hereon unless sooner canceled or suspended by proper authority.

GIVEN UNDER MY HAND THIS 02<sup>nd</sup> DAY OF  
DECEMBER 2016, AT WASHINGTON D.C.



Chief Engineering Division  
BY DIRECTION OF THE COMMANDANT



TERMS: The approval of the item described on the face of the Certificate has been based upon the submittal of satisfactory evidence that the item complies with the applicable provisions of the navigation and shipping laws and the applicable regulations in Title 33 and/or Title 46 of the Code of Federal Regulations. The approval is subject to any conditions noted on this Certificate and in the applicable laws and regulations governing the use of the item on vessels subject to Coast Guard inspection or on other vessels and boats.

Consideration will be given to an extension of this approval provided application is made 3 months prior to the expiration date of this Certificate.

The approval holder is responsible for making sure that the required inspections or tests of materials or devices covered by this approval are carried out during production as prescribed in the applicable regulations.

The approval of the item covered by this certificate is valid only so long as the item is manufactured in conformance with the details of the approved drawings, specifications, or other data referred to. No modification in the approved design, construction, or materials is to be adopted until the modification has been presented for consideration by the Commandant and confirmation received that the proposed alteration is acceptable.

NOTICE: Where a manufacturer of safety-at-sea equipment is offering for sale to the maritime industry, directly or indirectly, equipment represented to be approved, which fails to conform with either the design details or material specifications, or both, as approved by the Coast Guard, immediate action may be taken to invoke the various penalties and sanctions provided by law including prosecution under 46 U.S.C. 3318, which provides:

"A person that knowingly manufactures, sells, offers for sale, or possesses with intent to sell, any equipment subject to this part (*Part B. of Subtitle II of Title 46 U.S.C.*) and the equipment is so defective as to be insufficient to accomplish the purpose for which it is intended, shall be fined not more than \$10,000, imprisoned for not more than 5 years or both."



U. S. Department of Homeland Security  
United States Coast Guard  
Certificate of Approval

Coast Guard Approval Number: 162.060/2/1

Expires: 23 December 2021

BALLAST WATER MANAGEMENT SYSTEM  
Filtration/Ultraviolet

Alfa Laval Tumba AB  
Hans Stahles vag 7  
147 80  
Tumba SWEDEN

Alfa Laval PureBallast 3

Capacities: 85 - 3000 m3/h

This is to certify that the above listed BWMS with the listed treatment capacities has been satisfactorily examined and tested by Independent Lab DNV GL in accordance with the requirements contained in 46 CFR 162.060. The system shall be installed and operated in accordance with the below listed Operation, Maintenance, and Safety Manual applicable to the particular model.

PureBallast 3.0: Alfa Laval OMS Manual No. 9028553 02, Rev. 0, Dated 2016  
PureBallast 3.0 Ex: Alfa Laval OMS Manual No. 9028554 02, Rev. 0, Dated 2016  
PureBallast 3.1: Alfa Laval OMS Manual No. 9028378 02, Rev. 0, Dated 2016  
PureBallast 3.1 Ex: Alfa Laval OMS Manual No. 9028493 02, Rev. 0, Dated 2016  
PureBallast 3.1 Compact: Alfa Laval OMS Manual No. 9028495 02, Rev. 0, Dated 2016

Operational Limitations:  
See Appendix

The PureBallast 3.0 Ex and 3.1 Ex models meet the requirements of 46 CFR 111.105 and may be installed in hazardous locations on a U.S. flag vessel. The electrical supply and control systems must remain outside of hazardous locations.

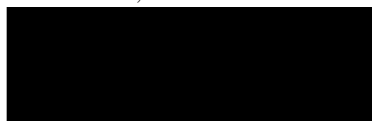
The BWMS must be marked in accordance with 46 CFR 162.060-22.

A copy of this Type Approval Certificate shall be carried on board a vessel fitted with the ballast water management system at all times.

\*\*\* End \*\*\*

THIS IS TO CERTIFY THAT the above named manufacturer has submitted to the undersigned satisfactory evidence that the item specified herein complies with the applicable laws and regulations as outlined on the reverse side of this Certificate, and approval is hereby given. This approval shall be in effect until the expiration date hereon unless sooner canceled or suspended by proper authority.

GIVEN UNDER MY HAND THIS 17<sup>th</sup> DAY OF  
MAY 2017, AT WASHINGTON D.C.



Chief, Engineering Division  
BY DIRECTION OF THE COMMANDANT



**TERMS:** The approval of the item described on the face of the Certificate has been based upon the submittal of satisfactory evidence that the item complies with the applicable provisions of the navigation and shipping laws and the applicable regulations in Title 33 and/or Title 46 of the Code of Federal Regulations. The approval is subject to any conditions noted on this Certificate and in the applicable laws and regulations governing the use of the item on vessels subject to Coast Guard inspection or on other vessels and boats.

Consideration will be given to an extension of this approval provided application is made 3 months prior to the expiration date of this Certificate.

The approval holder is responsible for making sure that the required inspections or tests of materials or devices covered by this approval are carried out during production as prescribed in the applicable regulations.

The approval of the item covered by this certificate is valid only so long as the item is manufactured in conformance with the details of the approved drawings, specifications, or other data referred to. No modification in the approved design, construction, or materials is to be adopted until the modification has been presented for consideration by the Commandant and confirmation received that the proposed alteration is acceptable.

**NOTICE:** Where a manufacturer of safety-at-sea equipment is offering for sale to the maritime industry, directly or indirectly, equipment represented to be approved, which fails to conform with either the design details or material specifications, or both, as approved by the Coast Guard, immediate action may be taken to invoke the various penalties and sanctions provided by law including prosecution under 46 U.S.C. 3318, which provides:

"A person that knowingly manufactures, sells, offers for sale, or possesses with intent to sell, any equipment subject to this part (*Part B. of Subtitle II of Title 46 U.S.C.*), and the equipment is so defective as to be insufficient to accomplish the purpose for which it is intended, shall be fined not more than \$10,000, imprisoned for not more than 5 years or both."

APPENDIX  
U. S. Coast Guard Approval Number: 162.060/2/1  
Expires: December 23, 2021

OPERATIONAL LIMITATIONS

Salinity: Not Applicable  
Water Temperature: Not Applicable  
Hold Time: > 72 hours  
UV-Intensity: Specified in Table

UV Reactor Size	Minimum UVI at 50% TRC (Treatment Rated Capacity)	Minimum UVI at 100% TRC (Treatment Rated Capacity)
170 m <sup>3</sup> /h	530 W/m <sup>2</sup>	820 W/m <sup>2</sup>
300 m <sup>3</sup> /h	530 W/m <sup>2</sup>	820 W/m <sup>2</sup>
600 m <sup>3</sup> /h	530 W/m <sup>2</sup>	820 W/m <sup>2</sup>
1000 m <sup>3</sup> /h	772 W/m <sup>2</sup>	1383 W/m <sup>2</sup>

\*\*\* END \*\*\*

(1 of 1)



U. S. Department of Homeland Security  
**United States Coast Guard**  
**Certificate of Approval**

Coast Guard Approval Number: 162.060/3/1

Expires: 23 December 2021

BALLAST WATER MANAGEMENT SYSTEM  
Filtration/Electrodialysis

OceanSaver IP AS  
P.O. Box 2087, 3003  
Drammen NORWAY

OceanSaver BWTS MKII

Capacities: 200-7200m<sup>3</sup>/h (Models and operational ranges shall be in accordance with the Range Table provided in the OceanSaver Operation, Maintenance, and Safety Manual)

This is to certify that the above listed BWMS with the listed treatment capacities has been satisfactorily examined and tested by Independent Lab DNV GL in accordance with the requirements contained in 46 CFR 162.060. The system shall be installed and operated in accordance with the OceanSaver Operation, Maintenance, and Safety Manual, Rev. 1, dated December 14, 2016.

Operational Limitations:

Salinity: Not Applicable  
Water Temperature: Not Applicable  
Hold Time: Not Applicable  
Electrolyte Feed Temperature: >17°C  
Electrolyte Feed Salinity: >20 Practical Salinity Units (PSU)  
Filter Inlet Pressure: >1.6 Bar  
Total Residual Oxidant (TRO): >1.7 mg/L

The BWMS does not meet the requirements of 46 CFR 111.105 and may not be installed in hazardous locations on a U.S. flag vessel. The BWMS may be installed in hazardous locations on a foreign flag vessel subject to approval of the foreign administration.

The BWMS models which incorporate the use of FilterSafe Turbo filters may not increase rated capacity above that of the corresponding standard models.

The BWMS must be marked in accordance with 46 CFR 162.060-22.

A copy of this Type Approval Certificate shall be carried on board a vessel fitted with the ballast water management system at all times.

\*\*\* End \*\*\*

THIS IS TO CERTIFY THAT the above named manufacturer has submitted to the undersigned satisfactory evidence that the item specified herein complies with the applicable laws and regulations as outlined on the reverse side of this Certificate, and approval is hereby given. This approval shall be in effect until the expiration date hereon unless sooner canceled or suspended by proper authority.



GIVEN UNDER MY HAND THIS 6<sup>th</sup> DAY OF  
FEBRUARY 2017, AT WASHINGTON D.C.



Chief Engineering Division  
BY DIRECTION OF THE COMMANDANT



TERMS: The approval of the item described on the face of the Certificate has been based upon the submittal of satisfactory evidence that the item complies with the applicable provisions of the navigation and shipping laws and the applicable regulations in Title 33 and/or Title 46 of the Code of Federal Regulations. The approval is subject to any conditions noted on this Certificate and in the applicable laws and regulations governing the use of the item on vessels subject to Coast Guard inspection or on other vessels and boats.

Consideration will be given to an extension of this approval provided application is made 3 months prior to the expiration date of this Certificate.

The approval holder is responsible for making sure that the required inspections or tests of materials or devices covered by this approval are carried out during production as prescribed in the applicable regulations.

The approval of the item covered by this certificate is valid only so long as the item is manufactured in conformance with the details of the approved drawings, specifications, or other data referred to. No modification in the approved design, construction, or materials is to be adopted until the modification has been presented for consideration by the Commandant and confirmation received that the proposed alteration is acceptable.

NOTICE: Where a manufacturer of safety-at-sea equipment is offering for sale to the maritime industry, directly or indirectly, equipment represented to be approved, which fails to conform with either the design details or material specifications, or both, as approved by the Coast Guard, immediate action may be taken to invoke the various penalties and sanctions provided by law including prosecution under 46 U.S.C. 3318, which provides:

"A person that knowingly manufactures, sells, offers for sale, or possesses with intent to sell, any equipment subject to this part (*Part B. of Subtitle II of Title 46 U.S.C.*) and the equipment is so defective as to be insufficient to accomplish the purpose for which it is intended, shall be fined not more than \$10,000, imprisoned for not more than 5 years or both."



U. S. Department of Homeland Security  
**United States Coast Guard**  
**Certificate of Approval**

Coast Guard Approval Number: 162.060/4/0

Expires: 06 June 2022

BALLAST WATER MANAGEMENT SYSTEM  
Filtration/Electrolysis

Sunrui Marine Environment Engineering Co., Ltd  
149-1 Zhuzhou Road, Laoshan District  
Qingdao, P.R. CHINA

SUNRUI BalClor

Maximum Treatment Rated Capacities:

170/350/600/1200/1700/2200/2800/3200/3800/4300/5500/6300/7300/8500 m3/h

This is to certify that the above listed BWMS with the listed maximum treatment rated capacities has been satisfactorily examined and tested by Independent Lab DNV GL in accordance with the requirements contained in 46 CFR 162.060. The system shall be installed and operated in accordance with the SUNRUI BalClor Ballast Water Management System User Manual, Rev. 1.47, dated June, 2017.

Operational Limitations:

Salinity: Not Applicable

Temperature: Not Applicable

Hold Time: Not Applicable

Electrolyte Feed Temperature: >5°C

Electrolyte Feed Salinity: >15 Practical Salinity Units (PSU)

Filter Inlet Pressure: >1.6 Bar

Total Residual Oxidant (TRO): 7.5 mg/L

The BWMS does not meet the requirements of 46 CFR Subchapter F or 46 CFR Subchapter J, and may not be installed on a U.S. flag vessel. The BWMS does not meet the requirements of CFR 111.105 and may not be installed in hazardous locations on a U.S. flag vessel.

The BWMS models which incorporate the use of FilterSafe Turbo filters may not increase rated capacity above that of the FilterSafe standard model.

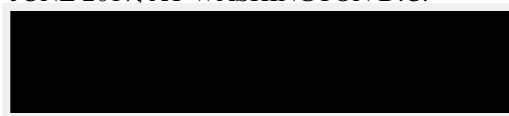
The BWMS must be marked in accordance with 46 CFR 162.060-22.

A copy of this Type Approval Certificate shall be carried on board a vessel fitted with the ballast water management system at all times.

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GIVEN UNDER MY HAND THIS 06<sup>th</sup> DAY OF  
JUNE 2017, AT WASHINGTON D.C.



Chief, Engineering Division  
BY DIRECTION OF THE COMMANDANT



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"A person that knowingly manufactures, sells, offers for sale, or possesses with intent to sell, any equipment subject to this part (*Part B. of Subtitle II of Title 46 U.S.C.*) and the equipment is so defective as to be insufficient to accomplish the purpose for which it is intended, shall be fined not more than \$10,000, imprisoned for not more than 5 years or both."