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8 August 2017

The Japan Ship Owners' Mutual Protection & Indemnity Association
2-15-14, Nihonbashi-Ningyocho
Chuoh-ku, Tokyo 103-0013, JAPAN

Re: **BALLAST WATER MANAGEMENT – A U.S. PERSPECTIVE**

Dear Sirs:

We set forth for the Association's and its Members' guidance our advisory / comments concerning vessel ballast water management from a United States ("US") perspective.[1] As members of the worldwide maritime community are well aware, the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004, ("IMO Convention"), adopted on 13th February 2004, will enter into force on 8th September 2017, or in less than two (2) months. Less well known is that the US is not a signatory to the IMO Convention. Instead, the US has enacted its own ballast water management requirements ("US requirements") which apply to US and foreign vessels, and are found in 33 CFR Part 151, Subpart C (Ballast Water Management for Control of Nonindigenous Species in the Great Lakes and Hudson River),[2] § 151.1500 – 151.1518, and Subpart D (Ballast Water Management for the Control of Nonindigenous Species in Waters of the United States),[3] § 151.2000 – 151.2080.

While there are differences between the IMO Convention and the US requirements, their respective goals are very similar: to prevent / limit the spread of nonindigenous species by controlling the discharge of ballast water from vessels. In the US, the governmental entity monitoring a vessel's ballast water management performance, and enforcing the US requirements is the United States Coast Guard ("USCG"). Furthermore, the USCG maintains an active presence in every US port, and specifically, has a major presence in those ports where commercial vessels trade, and ballast water management issues may arise.

The entry into force of the IMO Convention in September of this year will not affect the USCG's enforcement of US regulations – the USCG will continue to inspect vessels to ensure compliance not only when they arrive at US ports, but also while they remain in US waters. The focus of this advisory will be to emphasize those ballast water management issues which are of particular importance to the USCG so that vessels calling at US ports comply with US regulations throughout the entire time they are in US waters: upon arrival, while conducting cargo operations, and when departing this country.

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[1] / We would like to thank Mr. Mike Rand, Environmental Compliance Coordinator, Office of Commercial Vessel Compliance, United States Coast Guard, Washington, D.C., for his valued assistance in reviewing this advisory, and for providing his comments.

[2] / Subpart C can be found at: https://www.ecfr.gov/cgi-bin/text-idx?SID=42e3fb22b277940f12669eb7653a5157&mc=true&node=sp33.2.151.c&rgn=div6

[3] / Subpart D can be found at: https://www.ecfr.gov/cgi-bin/text-idx?SID=42e3fb22b277940f12669eb7653a5157&mc=true&node=sp33.2.151. d&rgn=div6

Since the US enacted its own ballast water management regulations in March 2012, it has approved, after a careful review of the individual manufacturer's application, four (4) **Ballast Water Management Systems** ("BWMS") manufactured by the following companies (in date order of approval):

1. Optimarin AS / Sandnes, Norway

   Model: OBS / OBS Ex
   System Type: Filtration + UV
   Certificate Issued: 2 December 2016
   Certificate Expires: 2 December 2021

2. Alfa Laval Tumba AB / Tumba, Sweden

   Model: Pure Ballast 3
   System Type: Filtration + UV
   Certificate Issued: 23 December 2016
   Certificate Expires: 23 December 2021

3. OceanSaver IP AS / Drammen, Norway

   Model: MK II
   System Type: Filtration + Electrodialysis
   Certificate Issued: 23 December 2017
   Certificate Expires: 23 December 2021

4. Sunrui Marine Environment Engineering Co., Ltd. / Qingdao, China

   Model: Balclor
   System Type: Filtration + Electrolysis
   Certificate Issued: 7 June 2017
   Certificate Expires: 6 June 2022

The USCG has issued Certificates of Approval for the approved BWMS, and the Certificates can be found on the USCG's website at https://homeport.uscg.mil/ (Missions > Environmental > Ballast Water Management Program > Type Approval > Approved BWMS). It is anticipated that with the passage of time, the USCG will approve additional applications for BWMS for use in commercial vessels.

The USCG has also taken under review for possible BWMS approval the following two (2) BWMS applications:

1. Ecochlor, Inc. / USA

   Model: Ecochlor BWTS
   System Type: Filtration + Chemical Injection
   Application Received: 31 March 2017
   Certificate Issued: Pending

2. Erma First ESK Engineering Solutions SA / Greece

   Model: Erma First FIT
   System Type: Electrolysis + Filtration
   Application Received: 2 May 2017
   Certificate Issued: Pending

According to the USCG's *Maritime Commons*[4] internet posting dated 10th May 2017, its Marine Safety Center ("MSC") will review BWMS applications "…for compliance with U.S. Coast Guard regulations in 46 CFR 162.060. Once it has been determined that the application meets the requirements, the MSC will issue a type approval certificate." An earlier *Maritime Commons* posting dated 2nd December 2016 provides that:

> "Each type approval application includes thousands of pages of data and analysis to document compliance with the comprehensive land-based and shipboard testing requirements. In addition, the applications include detailed descriptions of materials, evaluations of component suitability for the maritime environment, and operating manuals. The Marine Safety Center remains in constant communications with the manufacturers and the Independent Laboratories to keep them apprised of the status of our review."

USCG Rear Admiral Paul Thomas, Assistant Commandant for Prevention Policy, was quoted in the 2nd December 2016 posting as stating the following regarding the USCG approval of the BWMS manufactured by Optimarin AS, the first BWMS to receive USCG approval: "While this is a significant milestone, it is the first of multiple system approvals that are needed to mitigate the threat of harmful aquatic invasive species,…One size does not fit all, so we will continue to evaluate other systems submitted by multiple manufactures with the intent to provide options that meet shipping's varying needs."

In addition to the four (4) above listed USCG approved BWMS, the USCG has accepted for use in vessels some one hundred one (101) Ballast Water **Alternate Management Systems** ("AMS").[5] The first USCG AMS "acceptance" was issued on 15 April 2013, and the most recent on 28 April 2017. These AMS had previously been approved as BWMS by foreign administrations in accordance with IMO Convention standards, and the manufacturers sought and received written approval from the USCG that their respective BWMS are accepted as AMS. Marine Safety Information Bulletin ("MSIB") OES-MSIB No. 010-16, Rev. 1, dated 16th August 2016 provides that:

> "To be eligible for use, an AMS must be installed on a vessel prior to the date the vessel is required to comply with the ballast water discharge standard (BWDS). A vessel may continue to manage ballast water with an AMS for up to 5 years after the date it is required to comply with the BWDS implementation schedule in 33 CFR 151.1512(b) or 151.2035(b)."

Furthermore, USCG approval of the foreign administration approved BWMS as an accepted AMS does not necessarily imply that it will receive USCG BWMS approval. The list of USCG accepted AMS and the corresponding Alternate Management System (AMS) Acceptance Letters, in accordance with the requirements of 33 CFR 151.2026, can be found at https://homeport.uscg.mil/ (Missions > Environmental > Ballast Water Management Program > Alternate Management Systems (AMS)).

The USCG clearly sets forth in its MSIB OES-MSIB No. 14-16 dated 2nd December 2016 the five (5) ways by which:

> "commercial seagoing ships operating in U.S. waters (within 12 nautical miles) and not otherwise exempted are required to manage ballast water…:
>
> 1. Use a U.S. type-approved BWMS to meet the discharge standard;
>
> 2. Temporarily use a foreign type-approved BWMS that has been accepted by the U.S. Coast Guard as an Alternate Management System (AMS);
>
> 3. Use and discharge ballast water obtained exclusively from a U.S. Public Water System (PWS);

[4] / Maritime Commons can be found at: http://mariners.coastguard.dodlive.mil/.

[5] / Please note that the AMS information listed in this paragraph is current as of 18th July 2017, and is subject to change.

4. Discharge ballast water to a reception facility;

5. Do not discharge ballast water inside 12 nautical miles."

Assuming that an oceangoing commercial vessel wants to discharge in US waters ballast water previously obtained from outside of the US, and it is not otherwise exempted, e.g., the USCG has granted the vessel an extension to its compliance date, it must have onboard and correctly utilize a USCG approved BWMS or an accepted AMS to prevent / limit the spread of nonindigenous species by controlling the discharge of ballast water from vessels.

Because the USCG has now approved four (4) BWMS for use in preventing / limiting the spread of nonindigenous species by controlling the discharge of vessel ballast water, the granting by the USCG of an extension to the vessel's compliance date, while not eliminated, will become more difficult to obtain. We set forth below the Implementation Schedule Table used for both the Ballast Water Management Discharge Standards for Vessels Using Coast Guard Approved Ballast Water Management Systems (Table 151.1512(b)) and the Approved Ballast Water Management Methods (Table 151.2035(b)):

| | **Vessel's ballast water capacity** | **Date constructed[6]** | **Vessel's compliance date[7]** |
|---|---|---|---|
| New vessels | All | On or after December 1, 2013 | On delivery. |
| Existing vessels | Less than 1500 $m^3$ | Before December 1, 2013 | First scheduled drydocking after January 1, 2016. |
| | 1500-5000 $m^3$ | Before December 1, 2013 | First scheduled drydocking after January 1, 2014. |
| | Greater than 5000 $m^3$ | Before December 1, 2013 | First scheduled drydocking after January 1, 2016. |

USCG MSIB OES-MSIB No. 14-16 dated 2nd December 2016 states that "Now that a type approved BWMS is available, any owner/operator requesting an extension must provide the Coast Guard with an explicit statement supported by documentary evidence (*e.g.,* a delay in commercial availability) that installation of the type approved system is not possible for purposes of compliance with the regulatory implementation schedule." MSIB OES-MSIB No. 003/17 dated 6th March 2017 adds that:

[6]/ "Constructed" in respect to a vessel means a stage of construction when—
(1) The keel of a vessel is laid;
(2) Construction identifiable with the specific vessel begins;
(3) Assembly of the vessel has commenced and comprises at least 50 tons or 1 percent of the estimated mass of all structural material, whichever is less; or
(4) The vessel undergoes a major conversion.
33 CFR 151.1504

[7]/ For your information, recent amendments to Regulation B-3 of the IMO Convention were approved, and the amended compliance schedule for the installation of Ballast Water Treatment Systems ("BWTS") for certain existing vessels was extended for some two (2) years for vessels built before 8th September 2017. While the IMO Convention delayed the BWTS compliance deadlines for certain existing vessels, those IMO Convention amendments have no effect whatsoever on the enforcement by the USCG of US regulations / US compliance dates.

> "If a type-approved system is not available for a vessel, and compliance with the other approved ballast water management methods is not possible, the vessel owner/operator may apply for an extension of the vessel's compliance date. Whether a type-approved system is "available" will be based on evidence submitted by the vessel owner/operator with the application for extension. The length of compliance date extensions, when granted, will be based on the availability of Coast Guard type-approved systems and detailed installation plans. Vessel owners and operators should anticipate that this will not typically align with scheduled dry docking."

We strongly recommend that a vessel's Owner / Operator carefully review MSIB OES-MSIB Nos. 14-16 and 003/17 for the criteria used by the USCG in evaluating a vessel's extension request. Not only will the vessel's compliance date be considered, but the availability of a BWMS, and its possible installation time / plan will be taken into account. [8]

The USCG also discussed in MSIB OES-MSIB No. 003/17 its position regarding extension requests for those vessels with accepted AMS installed onboard:

> **"Alternative Management System (AMS):** Vessels having an AMS installed do not qualify for an extension because the vessel is in compliance with the regulations; the AMS can be used for a period of five years after the vessel's compliance date. Once Coast Guard type-approved BWMS are available for a vessel, the vessel will no longer be able to install AMS in lieu of type-approved systems. Therefore, if a vessel is not past its compliance date and installing an AMS is being considered as a compliance method, the vessel owner or operator should evaluate whether a Coast Guard type-approved BWMS 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 and used for up to five years after the vessel's compliance date."

Furthermore, the USCG recommends that vessel interests submit its extension request (12) to (16) months before the vessel's compliance date, and that requests submitted less than (12) months prior to the compliance date are at risk of being denied. Sufficient time is needed by the USCG to review applications, request additional information, if needed, and grant or deny the extension request. If the request is denied, then the vessel's Owner / Operator would have "…enough time to prepare for and install a BWMS, or assess compliance options using another approved ballast water management method prior to the vessel's compliance date." The USCG also cautions that if an extension is granted for a vessel, that vessel interests should ensure that the vessel is in compliance with US regulations at its extended compliance date, as it is unlikely that a further or supplemental extension will be granted.

The USCG's most recent MSIB that deals with BWMS and its management methods is No. 007-17 dated 30th June 2017. Importantly, this bulletin reconfirms that the IMO Convention requirements for "sequential exchange method" are not permitted under US law beyond a vessel's compliance date:

> "Recently, the National Ballast Information Clearinghouse has received a number of reports indicating that untreated ballast water exchanges had been undertaken by vessels beyond their compliance date and without a valid Coast Guard extension. An investigation into these circumstances has found that "Statement(s) of Compliance for Ballast Water Management" endorsed for "sequential exchange method" [Regulation D-1 of the BWM Convention] have

[8]/ It has been brought to our attention regarding extension requests that certain BWMS are not approved / accepted to treat fresh water, and that certain BWMS are approved / accepted with a specific "hold time." A vessel Owner / Operator may refer to these limitations, if applicable, when applying for an extension. The Owner / Operator will need to provide proof / evidence that the vessel operates in a manner, e.g., that the vessel has a history / practice of entering a port, discharging its cargo, and taking on ballast so that the vessel can safely shift docks, requiring no hold time and the ability to process fresh / brackish water.

been misinterpreted as applying to the U.S. BW regulations. These Statements of Compliance are issued under the provisions of the BWM Convention, which the United States is **not** signatory to. Under the U.S. BW regulations, meeting the BWM Convention requirements for sequential exchange is **not** an acceptable BWM method for vessels beyond the compliance date specified in 33 CFR 151.1512 & 151.2035 without a valid Coast Guard extension."

The June 2017 bulletin also reconfirms the information found in MSIB OES-MSIB No. 14-16 and as discussed earlier in this advisory, regarding the five (5) ways by which commercial vessels beyond their compliance dates are required to manage ballast water when operating in US waters. The USCG "reminds" vessel interests to maintain current "vessel specific" Ballast Water Management plan for the vessel, and to provide needed "…training on the application of ballast water and sediment management and treatment procedures as required by 33 CFR 151.2050(h). These plans should include options for the Master to consider if the BWMS stops operating or becomes unexpectedly unavailable during a voyage, and the need to contact the cognizant COTP or District Commander as soon as possible to discuss options not addressed above."

The USCG concluded its June 2017, and most recent bulletin by reminding vessel interests that "Violations of the U.S. ballast water regulations may result in costly delays, environmental deficiencies, civil enforcement action, and ineligibility for the QUALSHIP 21/E-Zero designation. For vessels subject to the International Safety Management (ISM) Code, companies are reminded of their obligation to ensure compliance with mandatory rules and regulations under Part A/1.2.3.1 and A/6.4 as well as 33 CFR 96.240(b)."

We would like to add that since the State of California has its own BWMS requirements, vessels trading to that state must also comply with California's regulations, in addition to US regulations found in 33 CFR Part 151, Subparts C and D. In this regard, the California State Lands Commission recently issued advisory letters / updates dated 13th and 24th July 2017 that discuss California state requirements regarding a vessel's management of its ballast water while in California state waters.

Further information on US ballast water management requirements, including information on enforcement policies and recordkeeping requirements for the above-listed methods, may be found in the USCG's "Ballast Water Frequently Asked Questions (Updated July 2017)," appended to this report as Attachment 7.

In sum, we strongly recommend that vessels trading to the US comply with all US ballast water management requirements / regulations, and for those vessels trading to the State of California, that state's own regulations, so as to avoid any possible violations of law, vessel delays, environmental problems, fines, and related issues. We are aware that non-compliance with US ballast water management regulations has resulted in a vessel being ordered to depart a US port for international waters to discharge its ballast water before being allowed to return to that port to conduct cargo operations.

Please note that we attach to this advisory a copy of the following documents discussed in this advisory:

1. USCG Marine Safety Information Bulletin OES-MSIB No. 010-16, Rev. 1 (Alternate Management Systems (AMS) Program Update, Rev. 1) dated 16th August 2016,

2. USCG Marine Safety Information Bulletin OES-MSIB No. 14-16 (Ballast Water Management (BWM) Extension Program Update) dated 2nd December 2016,

3. USCG Marine Safety Information Bulletin OES-MSIB No. 003/17 (Ballast Water Management (BWM) Extension Program Update) dated 6th March 2017;

4. USCG Marine Safety Information Bulletin MSIB No. 007-17 (Acceptable U.S. Ballast Water Management Methods vs. BWM Convention Methods) dated 30th June 2017;

5. USCG Marine Safety Center BWMS Type Approval Status (Approved + Under Review) – revised 6th June 2017;

6. USCG Ballast Water Frequently Asked Questions (Updated July 2017);

7. California State Lands Commission's advisory letter dated 24th July 2017 and attachments.

Should the Association's Members have any questions concerning US ballast water management requirements or our advisory, we recommend that Members contact the Association for assistance. We, too, are also pleased to respond to any enquiries that the Association / its Members may have.

With best regards, we remain,

Yours very truly,

MURPHY, ROGERS, SLOSS,
GAMBEL & TOMPKINS

Charles L. Whited, Jr.

/Enclosures