

## NORTH AMERICAN BALLAST WATER REGULATORY STATUS – SHIP OWNER PERSPECTIVE

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Several major developments in ballast water regulation have occurred over the last year. With the 2012 finalization of the United States Coast Guard's (USCG) ballast water rule, recent issuance of the U.S. Environmental Protection Agency's (EPA) final Vessel General Permit 2 (VGP2) and the Government of Canada's stated desire to seek regulatory consistency with the U.S., it may appear to many that ballast water regulatory development in North America is all but complete and is aligned. This however is not the case. This paper summarizes in general the current regulatory status and briefly outlines some of the continuing challenges and issues related to this complex regulatory framework, specifically from the perspective of a Canadian Great Lakes marine transportation company.

### Regulatory Overview in Brief

The USEPA and the USCG have, in their respective rules, implemented a common ballast water discharge standard and compliance schedule, adopting the International Maritime Organization's (IMO) D-2 standard for all vessels, with the exception of for domestic vessels operating exclusively in the Great Lakes. Ballast water management systems (BWMS) therefore will generally be required by most vessels operating in U.S. waters at their first scheduled dry docking after January 1, 2016, although sooner for vessels with smaller ballast water capacities and for new vessels. The EPA also requires 'New Lakers' built after 2009 to install BWMS.

Canada's proposed approach, outlined in Transport Canada's 2012 Discussion Paper, is to apply the ballast water discharge standard to all vessels, including all domestic vessels operating in the bi-national waters of the Great Lakes, in line with Canada's 2010 ratification of the IMO Ballast Water Convention (BWC). The only exceptions would be for domestic vessels that operate only in waters under Canadian jurisdiction (for example, coastal or Arctic vessels that do not enter U.S. waters or the Great Lakes) and the possibility for time-limited, risk-based extensions for vessels operating in the lakes.

State Clean Water Act 401 certifications of VGP2 have, for the most part, aligned with the federal discharge standard, although some have included additional requirements related to monitoring and enforcement. In addition, several states, notably Michigan, Minnesota and Wisconsin, retain their own ballast water permits which are not entirely consistent with the federal rules.

The IMO Ballast Water Convention remains un-ratified as of this writing. The Convention has achieved the requisite number of countries but not tonnage (29.06% achieved of 35% required) to trigger ratification.

### Issues and Implications for Ship Owners

#### 1. Inconsistency in Regulation

There is now some level of consistency in the U.S. ballast water regulatory framework, in that most jurisdictions have adopted the IMO D-2 ballast water discharge standard instead of '100x' or '1000x'

the standard. However, although somewhat more aligned than originally proposed, the USEPA and USCG rules continue to differ with respect to several significant elements, including how they define acceptable equipment and the requirement in the VGP for ocean-going vessels to continue to conduct ballast water exchange even after ballast water treatment becomes mandatory. A further discrepancy that will disproportionately affect those Canadian domestic ship owners who are in the midst of fleet renewal is the application by the EPA of the discharge standard to 'New Lakers', despite their acknowledgement that no such treatment technology yet exists for this group of vessels.

As also noted, and although still under development, Canada's proposed approach does not currently align with U.S. requirements.

## 2. Continuing Uncertainty

The U.S. regulatory framework continues to present substantial uncertainty for a number of reasons.

VGP2 contains both a Permit Reopener clause, enabling the EPA to open the permit for the purpose of making requirements more stringent, and an Alternative Permit Clause, allowing the EPA to require a vessel or class of vessels to obtain individual permits with new or different requirements. In fact, the EPA is quite clear that they have not exempted 'Lakers', rather they have found that treatment technology is not available therefore the VGP cannot require it at this time. Their intention is to closely track the development of BWMS for lakings and apply the standard at such time that suitable BWMS are available. This may have the effect of triggering removal of the exemption for the entire domestic fleet once a suitable system is identified.

The USCG too has retained in their rule the possibility of implementing a more stringent discharge standard. In addition, state permits are subject to revision and re-issuance from time to time. All of this amounts to continuing uncertainty for ship owners.

Likely of most significance are the continuing law suits in the U.S. brought by various ENGOs. The VGP is subject to litigation and three lawsuits have been filed federally in US district courts since its issuance on April 18, 2013. This litigation circumvents the regulatory process, including the state 401 certifications, and ship owners are vulnerable to any settlements reached by petitioners and the EPA.

## 3. Canada's Position

There is some question as to whether the IMO Ballast Water Convention is the appropriate or legally required regulatory instrument for Canadian domestic vessels operating only in the shared waters of the Great Lakes and in Canadian waters, particularly in light of the absence of U.S. BWC ratification. Confounding this is uncertainty as to when (or if) the BWC will be fully ratified. Several major flag administrations and large shipping organizations have identified major concerns and obstacles to ratification such as lack of confidence in IMO type-approvals and system reliability and unresolved issues around port state control enforcement. Canada is basing implementation of its ballast water requirements on imminent coming into force of the BWC, an approach that is likely to cause further delays.

## 4. Reliability of Ballast Water Treatment Technologies

IMO has granted final approval to more than thirty ballast water treatment systems and many of these have obtained type-approval from various foreign administrations. Despite this, there is very

little confidence in the shipping community regarding system reliability and rising global concerns over the ability of BWMS to meet the discharge standard under ship board conditions.

One of the main issues is the discrepancy between the tests that a system must undergo in order to obtain IMO approval versus the more stringent requirements for testing under the USCG rule. Ship owners are concerned that a system approved under the less rigorous IMO regime may not meet US requirements. To try and address this, and to respond to recent system failures, IMO, at its recent 65<sup>th</sup> meeting of the Marine Environment Protection Committee (MEPC) in May 2013, considered changes to increase the transparency of the IMO type approval process and to amend type approval certification documents. However, this will likely not go far enough to address the concerns of ship owners.

The USCG has also attempted to address this issue through their 'Alternate Management System' (AMS) program. USCG has granted AMS status to some ten BWMS as of this writing, meaning that they have examined the data associated with the system's foreign type approval and found it to be acceptable pending the more stringent testing of the system under the USEPA's Environmental Technology Verification (ETV) protocol. The USCG rule allows a vessel to use an AMS system for up to five years while the system manufacturer pursues USCG approval. It is pretty clear however that ship owners are at risk if they purchase and install an AMS system that subsequently fails USCG testing.

#### 5. Availability of Ballast Water Management Systems for the Great Lakes

Ship owners operating in the Great Lakes must be assured that systems will work in the unique environmental conditions of these waters. At an estimated capital cost for the domestic fleet of two to four million dollars per vessel, ship owners cannot realistically accept any system that has not been rigorously proven to work reliably in these waters. IMO protocols for testing, evaluation, and type approval are neither technically appropriate to deal with the operating environment of Great Lakes waters due to the unique ranges in salinity, temperature, and assemblages of organisms, and most systems are not designed for installation in these uniquely designed vessels that have many constraints not found in international vessels sailing on transoceanic trading routes. There are currently no systems available that have been proven to meet all of these requirements, a fact acknowledged by both the USCG and the EPA.

#### 6. Inconsistent Equipment Approval Requirements in the U.S.

With reference to the two federal rules in the U.S., there is confusion over what is required in order to be considered a compliant system. A system is deemed acceptable by the EPA if it has been type approved by the USCG OR a foreign administration OR received AMS designation by the USCG – under the VGP it is not mandatory that the system be USCG type approved. However, in order to comply with the USCG rule, the system must be approved under that rule. Therefore, a ship owner that rushes to install an AMS designated system to comply with the VGP but that subsequently fails USCG testing could be at serious commercial risk. The catch-22: because AMS systems are accepted by the EPA a ship owner may not be in a position to avail itself of any technology non-availability exemption.

#### 7. Unequal Requirements for U.S. and Canadian Domestic Fleets

The EPA and USCG have both applied the requirement for treatment systems to any vessels that operate beyond Anticosti Island. This requirement is somewhat less problematic than the draft VGP2,

which proposed exempting only vessels operating above the Welland Canal, however the demarcation at Anticosti Island and the previously noted requirement for new lakers to meet the discharge standard will result in close to half of the Canadian domestic fleet requiring BWMS. The US domestic fleet operating in the Great Lakes continues to be entirely exempt by virtue of their geographic location of operation. This is of course of great concern to Canadian ship owners from a commercial competitiveness perspective.

#### 8. Enforcement and Risk of Criminalization of Sea Farers

Ship owners have continuing concerns around compliance and enforcement. Given the technology and reliability issues previously discussed, there is substantial risk that systems will not achieve the discharge standard consistently. Underscoring the validity of this concern, MEPC65 adopted a circular to initiate a trial period for the sampling and testing of ballast water by port state control during which inspectors will refrain from detaining a ship or taking criminal sanctions in the event that the discharge standard is not met by a vessel. This reflects the reality that the equipment currently available to conduct such ship board compliance testing is only at a prototype stage at best. It is of great concern that a ship owner with a ship built after Dec 1<sup>st</sup>, 2013 must comply with a BWMS, while port state control may take years to determine how to conduct compliance testing.

The implementation of this probationary period is of relatively little comfort for vessels operating in the U.S. on a regular basis, given the potential for law suits under the U.S. Clean Water Act and the possibility of state compliance officers detaining vessels on the basis of questionable sampling and testing methods. A myriad of details remain to be resolved in this area.

#### 9. BWC Implementation Dates

IMO's MEPC65 agreed to a rescheduling of the BWC implementation dates in a move aimed at preventing installation bottlenecks of treatment systems when the Convention enters into force. It is uncertain as to how or if this will affect timelines required by the VGP2 and the USCG rule, but underscores the guessing game that ship owners are subject to with regards to compliance timelines.

#### Conclusions

There remain many unresolved issues in application of ballast water management requirements domestically and globally. Navigation of this regulatory landscape by ship owners continues to be a challenging task.

The domestic fleets operating in the Great Lakes, St. Lawrence and Canadian east coast and Arctic regions face what are arguably the most serious challenges to compliance, given their unique circumstances of operating in bi-national, multi-jurisdictional and environmentally distinct waters and the particular operational characteristics of their vessels. The domestic marine industry has requested that the Government of Canada conduct a full and balanced policy analysis before regulating the domestic fleet, including consideration of the soon-to-be-released Department of Fisheries and Oceans national aquatic invasive species risk assessment results, a cost-benefit analysis and review of its legal obligations and options under the Convention. Ideally, what is required is a unique solution based on an analysis of the risk related to domestic transfer of aquatic organisms and an assessment of the opportunities to manage these risks in operationally, economically and environmentally sustainable ways.