UPDATE ON UNITED STATES (US) BALLAST WATER TREATMENT REQUIREMENTS

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US BALLAST WATER AND SEDIMENTS OVERVIEW

- The US is not a party to the International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM Convention).
- While BWM Convention ratification status has no direct impact, the USCG and the Environmental Protection Agency (EPA) have adopted the BWM Convention D-2 treatment standard, but measure the number of **"living"** organisms, not **"viable"** organisms.
- The USCG and EPA, separate statutory authorities, require separate regulatory programs by law.
- The USCG authority is the Nonindigenous Aquatic Nuisance Species Control Act of 1990 (NANPA), as amended by the National Invasive Species Act of 1996 (NISA).
- The EPA authority is the Clean Water Act (CWA).


US BWM OVERVIEW (continued)

- The USCG Final Rule, published 23 March 2012 and effective 21 June 2012, is a revision to the existing ballast water management (BWM) Rule that now includes a ballast water treatment system (BWTS) installation requirement along with record keeping, reporting, BWM Plan, and crew training.
- The EPA Vessel General Permit (VGP) includes ballast water treatment provisions; effective 19 December 2013.
- The USCG checks compliance for the EPA VGP during routine port State control (PSC) examinations and notifies the EPA of any non-compliance. The EPA generates any penalty action.


US BWM OVERVIEW (continued)

- While the USCG and EPA have adopted the BWM Convention D-2 standard, they employ a more rigorous Environmental Technology Verification (ETV) testing protocol to determine if a BWTS meets D-2.
- Also, ETV measures "live" organisms not "viability."
- A BWTS Type Approved under the BWM Convention G-8 and/or G-9 test protocol by other flag administrations may not meet ETV.
- The USCG may accept, on an interim basis, a USCG designated Alternate Management System (AMS) Type Approved to G-8 and/or G-9 by other flag administrations if installed prior to the USCG D-2 compliance date. 66 accepted to date.

US BWM FINAL RULE

- 33 Code of Federal Requirements (CFR) 151, Subparts C and D. Application: all vessels, US and foreign, equipped with ballast tanks, that operate in US waters up to 12 nautical miles (nm) offshore.
- Some exceptions, such as foreign vessels in innocent passage, crude oil tankers in coastwise trade, some vessels operating exclusively in the Exclusive Economic Zone, and vessels operating exclusively in one (1) Captain of the Port (COTP) Zone.
- BWM options include: USCG Type Approved BWTS to treat ballast water; use only water from a US public water supply; perform ballast water exchange more than 200 nm offshore, unless required to install and operate a Type Approved BWTS; use an AMS for up to five (5) years from the BWTS compliance date; do not discharge ballast water; or, discharge to a facility on shore.


USCG TYPE APPROVAL

- The manufacturer applies to the USCG designated "Independent Laboratory (IL)" for testing. Five (5) ILs currently designated. See 46 CFR 162.060.
- The IL conducts land-based and shipboard testing to determine if the system meets D-2 and system limitations.
- After successful testing, the manufacturer submits test data to the USCG and an application for Type Approval.
- The USCG reviews the test data and considers granting the Type Approval.
- Currently, three (3) applications for USCG Type Approval are under review. Type Approval will not affect existing extensions or AMS use, but an AMS must become Type Approved after five (5) years or be replaced by a Type Approved BWTS.

US BWM OVERVIEW

- There are no USCG Type Approved systems yet. Expectation – 2016? Four (4) UV system applications for Type Approval denied since the test for "viable" organisms IS a problem. As noted, the US standard measures "living" organisms.
- Practical alternatives: AMS or BWTS installation date time extension may be requested if no US Type Approved BWTS is available *that meets vessel requirements*. IAW Office of Operating & Environmental Standards (CG-OES) Policy Letter 13-01, Rev.2. https://homeport.uscg.mil. Go to "Environmental."
- To date: 66 treatment systems designated as AMS; approximately 10,000 time extensions. The EPA is not obligated to accept extensions, so vessels are technically in violation of the VGP and CWA.


USCG AND EPA BWTS IMPLEMENTATION DATES

	Ballast Capacity	Date Constructed	Compliance Date
New vessels	All	On or after 1 Dec 2013	On delivery
Existing vessels	<1500 m^3	Before 1 Dec 2013	First scheduled drydocking after 1 Jan 2016*
Existing vessels	1500 m^3 to 5000 m^3	Before 1 Dec 2013	First scheduled drydocking after 1 Jan 2014*
Existing vessels	>5000 m^3	Before 1 Dec 2013	First scheduled drydocking after 1 Jan 2016*

**Drydocking means placing a vessel in a drydock for an examination of all accessible parts of the vessel's underwater body.*






VGP AND USCG FINAL RULE DIFFERENCES

- The VGP requires ballast water exchange in addition to treatment for some vessels en route to the Great Lakes, creating safety concerns.
- The VGP has specific requirements for treatment system monitoring, along with maintenance of records on board and submission of monitoring records to the EPA as part of the Annual Report.
- The USCG Final Rule is less specific on monitoring.
- The VGP has treatment system "active substance" discharge limitations.
- The USCG Final Rule requires compliance with EPA requirements. The VGP requires compliance with the USCG.
- The USCG is currently working on a Navigation Vessel Inspection Circular (NVIC) to provide amplifying policy guidance.






US DISTRICT COURT ACTION

- On 5 October 2015, the US District Court of Appeals, 2nd Circuit granted petition by four (4) environmental organizations concerning US EPA VGP use of the IMO D-2 standard for ballast water treatment and four (4) other VGP provisions. See the West Gulf Maritime Association (WGMA) Daily Update from 6 October.
- Court remanded back to the EPA for further studies and a revised VGP consistent with the court's ruling. Current VGP to remain in place until revised VGP. Current plans are for a revised VGP in 2018.
- If a revised VGP has a treatment standard more stringent than D-2, it will be inconsistent with USCG requirements.
- USCG regulations provide for a review of D-2 NLT 1 January 2016 and potential for revised treatment standard in 2017.
- USCG review now completed and determined that D-2 stringency is sufficient.


US STATE ACTION

- New York (NY) and California are the most active states and originally proposed treatment standards 100 and 1,000 times more stringent than D-2.
- NY has now adopted D-2 as noted in the VGP. However, NY requires ballast water exchange in addition to treatment for *all NY waters*. Maine and Rhode Island have a similar provision in the VGP.
- California ballast water discharge standard still far exceeds D-2. But, compliance dates extended to 1 January 2020 for new vessels; and, for existing vessels, first drydocking after 1 January 2020. "0" detectable organisms standard extended to 1 January 2030.

US CONGRESSIONAL ACTION

- Past attempts to modify the CWA and VGP have been unsuccessful.
- Proposal now in the US Senate and House of Representatives: the Vessel Incidental Discharge Act (VIDA) would:
- Adopt the USCG ballast water rulemaking as the only management requirements for ballast water discharge.
- Develop a uniform national standard for other incidental discharges from vessels in place of the VGP, with the USCG as the lead agency.
- Require federal approval of State action.
- In the future, consider feasibility of more stringent standards.


THE BALLAST WATER DILEMMA

- 60,000 ships must prepare for compliance with the BWM Convention.
- Survey and certification with issuance of BWM Certificate.
- Revised BWM Plan.
- Acquisition and installation of treatment systems.
- Risk for ships trading in the US of installation of a system that may not meet D-2 standard using US test protocol, but no systems yet Type Approved by USCG.
- Compliance bottleneck on the horizon?


RECOMMENDATIONS

- Given the foregoing, shipowners need to do considerable study to evaluate available treatment systems to meet their needs and develop a timely compliance / acquisition and installation plan, to include:
  - a detailed review of manufacturer data concerning BWTS capacity and Type Approval testing actually performed; limitations re: salinity, temperature, turbidity, and space and power requirements;
  - training needs for operation and maintenance;
  - flag administration Type Approval; has manufacturer applied, or have plans to apply, for acceptance by the USCG as an AMS and pursue Type Approval; and,
  - review of the USCG Final Rule and Final VGP and associated guidance documents, along with the impact of federal legislation, if enacted, and State requirements.






KEEPING UP WITH CHANGES

- IMO
- US Federal Register – Daily Updates to the CFR
- National Archives – Federal Register – The Federal Register – Current Federal Register Index
- National Pollution Discharge Elimination System (NPDES) VGP
- EPA – Search "NPDES"
- USCG – Search "environmental standards"
- USCG Department of Homeland Security (Homeport) – Click on "Environmental" and then "Ballast Water Management Program"


THANK YOU

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