



US Coast Guard Ballast Water



Discharge Standard Final Rule



**Prevention First
2012**

Prepared by:
U.S. Coast Guard
Environmental Standards Division
Washington, D.C.



Overview



- Coast Guard Regulatory Authority
- Prior Ballast Water Regulatory Regime
- The Ballast Water Discharge Standard Final Rule
- Implementation of the Final Rule: Independent Labs; Type Approval; Enforcement & Compliance



Authorities for U.S. Coast Guard Regulations



1990 - Nonindigenous Aquatic Nuisance Prevention and Control Act

- Prevent or reduce the introduction and control the spread of NIS via the discharge of ballast water from those vessels entering U.S. waters of Great Lakes after operating outside the exclusive economic zone (EEZ).

1996 - National Invasive Species Act

- Extend Great Lakes regime to the nation.
 - Specific practices directed:
 - BWE Mid-ocean; Retention; Alternative BWE areas; USCG-approved, environmentally sound alternatives.



USCG Ballast Water Management Prior Requirements



- **Prior to March 23, 2012 final rule, BW management required for arrivals from outside EEZ:**
 - **Mid-ocean BW Exchange**, many vessels claim safety exemption as provided for in current regulation.
 - **Reporting Requirements** for vessels bound for ports or places of the U.S. including number of ballast tanks, volume of BW onboard, origin of BW to be discharged into waters of U.S.
 - **Ballast Water Management Practices**, avoid uptake or discharge in sensitive areas, areas with infestations, clean tanks, rinse anchors & chains, etc.



Drawbacks to Ballast Water Exchange



- Ballast Water Exchange is less than desirable as a long-term approach to reducing or preventing introductions of NIS via BWD.
 - Structural and operational risks with BWE.
 - Design
 - Age
 - Load
 - Sea conditions
 - Transitory Deviation from damage stability limits?
 - Effectiveness of BWE in removing NIS can be variable.
 - Tank design
 - Type of BWE
 - Salinity & temp diff's between BW and ocean water





The BW Final Rule



- Notice of Proposed Rulemaking - Aug 2009
- Public Comment Period ended – Dec 2009
 - Received over 3,000 comments
 - Top 3 issues were: (1) applicability; (2) availability of technology; (3) unified Federal standard
- Final Rule Published – March 23, 2012
 - Responses to public comments
 - Comments and documents at www.Regulations.gov
 - Docket no. USCG-2001-10486



The BW Final Rule



Regulation	Requirement
Jurisdiction	U.S. territorial sea – 12 nautical miles
Applicability	Sea-going vessels previously required to conduct BWE and coastwise vessels that do not operate outside EEZ but are greater than 1,600 GT and transit between Captain of the Port Zones
Implementation Schedule Dates are January 1 unless specified (First regularly scheduled drydocking after a vessel's compliance date)	New Vessels (Dec 1, 2013 keel laying): On delivery Existing Vessels (BW capacity in cubic meters): <1,500: 2016 1,500 - 5,000: 2014 >5,000: 2016
Great Lakes	Applies to vessels that depart the Great Lakes, transit beyond the EEZ, return and pass upstream of Snell Lock, aka "Salties."



The BW Final Rule



Requirement	BW Final Rule
Additional Non-Indigenous Species Reduction Practices	Same as in previous rule: Avoid uptake or discharge in sensitive areas, areas with infestations, clean tanks, rinse anchors & chains, etc.
BW Management Plan	Expanded in New Rule: Training and safety procedures, and fouling maintenance & sediment removal procedures.
Extension to Compliance Date	New to Final Rule: Ship owner can request extension of compliance implementation schedule if compliance is not possible.
BW Reporting and Recordkeeping	Same as in previous rule: Ballast Water Reporting Form must be submitted to NBIC for vessel subject to this rule, vessels that have ballast water tanks and operate in U.S. waters.



USCG BW Discharge Standard



Organism size	Amount allowable in discharge
≥ 50 micrometers	Less than 10 organisms per cubic meter
$< 50 - \geq 10$	Less than 10 organisms per milliliter
Indicator microorganisms	
< 1 colony forming unit of toxicogenic <i>Vibrio cholerae</i>	per 100 mL
< 250 cfu of <i>Escherichia coli</i>	Per 100 mL
< 100 cfu intestinal enterococci	Per 100 mL



OPTIONS FOR COMPLYING WITH USCG BWM REQUIREMENT



Meet discharge standard using Coast Guard Approved Ballast Water Management System



Use water from a Public Water Supply



Alternate Management System (temporary use of foreign approved BWMS)

Discharge to Reception Facility

No BW Discharge





USCG Type Approval of BWMS



- Long-established USCG program for type approval of ships' equipment
 - All testing by independent laboratories (ILs)
 - ILs vetted by USCG
- Incorporation of EPA Environmental Technology Verification (ETV) Program land-based test protocols
 - consistent with IMO BW Management Convention



USCG Type Approval



Two paths to follow

- Existing test data from type approval testing for a foreign administration.
 - Applicant must submit:
 - Data
 - Explanation of how submission meets or exceeds Coast Guard type approval requirements.
 - Subject to IL review
- Test data from an independent laboratory accepted by the Coast Guard.



Independent Labs

- Critical private sector entities.
- Key aspects for acceptability:
 - Independent of BWMS vendors/manufacturers
 - Capacity and ability to conduct ETV test protocol
 - Rigorous QA/QC programs.
- “Availability” outside USCG control.
- FR states no type approvals likely until 2015
 - “From scratch’ with USCG accepted IL
 - CG goal is to establish process as soon as possible.



First USCG-accepted IL: July 3, 2012



NSF Int'l, Ann Arbor, MI



Great Ships Initiative, Superior, WI



Maritime Environmental Resource Center, Baltimore, MD



Retlif Test Laboratories



Additional Provisions AMS



- Alternate Management Systems (AMS)
 - Bridging strategy to address fact that foreign type-approved systems are being installed prior to FR compliance dates
 - Must have been approved by foreign administration in accordance with IMO BW Convention
 - 5-year grandfather period after vessel compliance date



Compliance and Enforcement

- Assess compliance during regular vessel inspections
 - Port State control for foreign flags
 - Domestic vessel inspection
- Follow existing compliance approach
 - Documents (certifications and records)
 - Crew knowledge
 - Equipment condition
 - Sample discharge if warranted
- Sampling and analysis methods and tools in development
- USCG and EPA signed an MOU on February 14, 2011 to cooperate on vessel compliance with VGP



Policy Update



- Alternate Management System Determination – Policy signed 15 June 2012. Provides guidance for BW management system vendors on submitting applications for AMS determination from CG.
- Policy Message for Implementation of BW Discharge Standard – released 21 June 2012. Describes CG's enforcement & compliance posture for BW Discharge Standard.
- Frequently Asked Questions
- Documents available on CG-OES-3 webpage:
www.uscg.mil/environmental_standards



Thank You



- For questions or more details on Coast Guard's Ballast Water Management Program:
 - Email: environmental_standards@uscg.mil
 - Website: www.uscg.mil/environmental_standards