



U.S. Coast Guard Ballast Water Management



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Binational Great Lakes AIS Forum
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Program Updates

- Alternate Management Systems & Extensions to Compliance Dates
- USCG Type Approval of BWMS
- Comparison between USCG and IMO
- Compliance and Enforcement
- Next Steps; Nationally and Regionally



Options for Compliance



1. No BW Discharge



2. Coast Guard Type Approved Ballast Water Management System



3. Discharge to Facility Onshore or to Another Vessel for Purpose of Treatment



4. Use only water from a U.S. Public Water System



Two Temporary Compliance Alternatives



1. Alternate Management System (AMS) – Temporary Designation for up to 5 years



2. Receive an Extension to Vessel's Compliance Date - extension period will vary depending upon TA system availability





Temporary Compliance: Alternate Management Systems



- A BWMS is accepted for use as an AMS based on its type approval by a foreign administration.
- More than 60 systems are now accepted as AMS for use in U.S. waters.
- Marine Safety Information Bulletin 010-16:
 - Harmonizes AMS with extensions policy
 - AMS may be used for 5 years after expiry of the vessel's extended compliance date



Temporary Compliance Extensions



- Vessel owners/operators must apply at least 12 months prior to their compliance date
- Current extension letters will be honored or transferred
- Extensions granted after 06 March 2017 no longer align with scheduled dry docking dates
 - Letter now includes a specific “expiry date” based on availability of type approved systems and detailed installation plans
- Marine Safety Information Bulletin 03-17





Type Approvals

- First 3 Type Approval Certificates
 - Optimarin – OBS
 - Alfa Laval – Pure Ballast 3
 - OceanSaver – BWTS MKII
 - Sunrui - BalClor
- Applications currently under review
 - Ecochlor – EcoChlor BWTS
 - Erma First – Erma First FIT
- Additional manufacturers have submitted Letters of Intent stating they intend to apply



How Type Approval Works



Two options to follow (in accordance with [46 CFR](#)):

1. Evaluation of some/all existing test data and information from type approval testing for a foreign administration.
 - Applicant must include:
 - Data and information;
 - Explanation of how submission meets or exceeds Coast Guard type approval requirements.
 - Data and information must be reviewed by independent laboratory (IL).
 - Additional testing and evaluation by an IL may be required.
2. Evaluation of test data and information produced and submitted by an IL.



Independent Lab Program



USCG is working with ILs to ensure quality results, including regular teleconferences to discuss technical issues, certification reviews, and laboratory oversight.

The IL program focuses on:

- Consistency in testing
- Best practices
- Lessons learned



Type Approval

- IMO G8 –vs– US Type Approval
 - Similarities
 - Administrative Differences
 - Technical Differences





Type Approval Process

USCG v IMO



- Discharge standards are similar but not exactly the same - Viable (IMO) v. Living (USCG) organisms
- Differences between IMO and U.S. type approval testing (G8 revised in 2016, still non-mandatory)
 - Varying Flag Administration interpretations
 - Shipboard testing cycles (IMO: 3, USCG: 5)
 - O&M endurance test (IMO: No, USCG: Yes)
 - Many challenges remain: system scaling, and acceptance of alternate components
- Equivalence depends on Administration Req'ts



Type Approval Similarities



- Readiness evaluation
- Land-based testing
- Shipboard testing
- Environmental/
Component testing
- Treatment system scaling

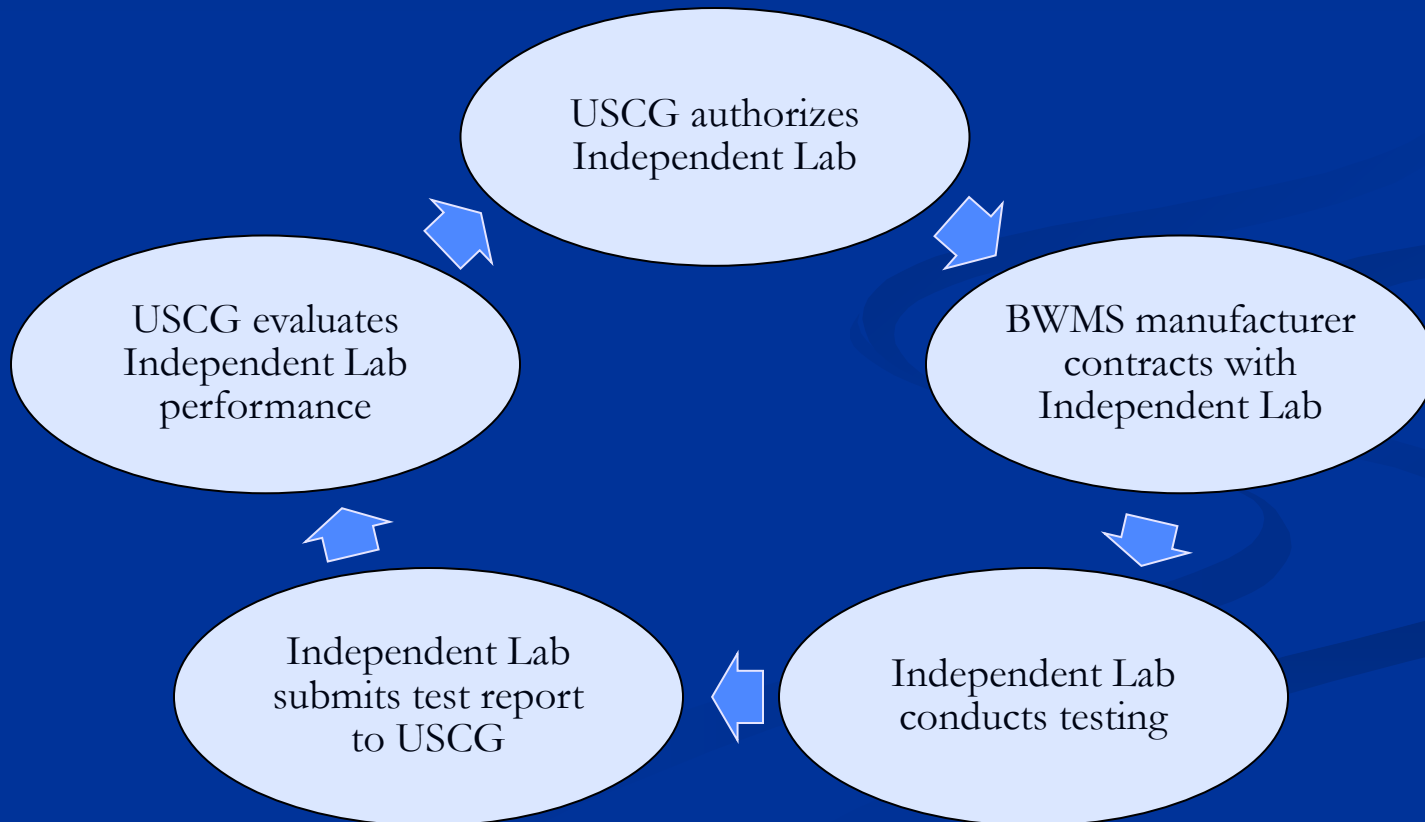




Administrative Differences



- Varying Flag Administration interpretations
- USCG use of 3rd party Independent Labs





Summary of Technical Differences



	IMO G8	US
Discharge Standard	< 10 Viable Organisms	< 10 Living Organisms
Shipboard Testing	3 Test Cycles	5 Test Cycles
Hold Time	> 5 Days	> 24 Hours
Component / Environmental Testing	2 Hour Endurance Test	4 Hour Endurance Test



Compliance and Enforcement

- Assess compliance during regular vessel inspections
 - BWM exams on foreign vessels: 9,300/year
- Follow existing compliance approach
 - Documentation and crew knowledge
 - Equipment condition and operation
 - Sample discharge, if warranted
- USCG R&D - Sampling and analysis method and tools in development
- New NVIC in development for field units, industry
- Deficiencies issued since 2012 Final Rule: 592
- Enforcement actions: 14 (warnings to \$5,500 fines)



Research & Development



- Current focus is on BWM compliance assessment methods and tools
 - Evaluate 6 “rapid” analysis tools for organisms in 10-50 um size class
 - Improve guidance and specifications for sample ports and sample collection (integrated with ISO)
 - Support revision of ETV Protocol
 - Scaling procedures for BWMS type approvals
 - Investigate sampling during stripping operations
 - Develop draft protocol for standard test organisms



Next Steps



- Address challenges to type approval
 - UV systems & alternative methods
 - Modification of system components (filters)
 - Scaling (size, flow rates)

- Develop compliance NVIC, policies

- Remain engaged with stakeholders
 - EPA, IMO, ship owners, manufacturers and IL's



Next Steps (Regional)



- IMO Convention entry into force
 - Transport Canada's implementation
 - Shared waters of Great Lakes
- EPA VGP 3.0
- Confined domestic Lakers
- Future of Ballast Water Working Group
- Impact of any Legislative Changes



Additional Information



Coast Guard Internet portal:

<http://homeport.uscg.mil/ballastwater>

Approved Labs and BWMS:

Coast Guard Maritime Information Exchange (CGMIX):

<http://cgmix.uscg.mil>

QUESTIONS?

Compliance: E-mail to the Office of Commercial

Vessel Compliance: CGCVC@uscg.mil

Extensions: environmental_standards@uscg.mil

