



# U.S. Coast Guard Type Approval Program



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# Type Approval Overview

- Online resources
- U.S. type approval process
- Status
- USCG research and development
- Next Steps



# Online Resources

Coast Guard Maritime Commons:

<http://mariners.coastguard.dodlive.mil/>

Navigation & Vessel Inspection Circulars:

<https://www.uscg.mil/hq/cg5/nvic/>

Coast Guard Homeport:

<http://homeport.USCG.mil>

(See: Mission: Environmental / Ballast Water Management Program)



## Online Resources, Cont.



Approved Labs and BWMS:

Coast Guard Maritime Information Exchange  
(CGMIX):

<http://cgmix.uscg.mil>

Coast Guard Marine Safety Info Bulletins:

<https://www.uscg.mil/msib/>



# How Type Approval Works



Two options for equipment approval:

1. Submit application and data by a foreign administration.
  - Supporting information 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.



# Administrative



- USCG use of 3<sup>rd</sup> party Independent Labs
  1. USCG accepts IL
  2. BWMS manufacturer contracts with IL
  3. IL conducts testing / receives foreign type approval testing results
  4. IL submits test reports to USCG
  5. USCG evaluates IL testing results



# Land-Based Tests

- The 2010 Generic Protocol for the Verification of Ballast Water Treatment Technology was developed under the EPA's Environmental Technology Verification Program (ETV) (EPA Ref. EPA/600/R-10/146)
- Collaborative effort of the NSF International, U.S. EPA, CG, manufacturers, researchers, test facilities, regulators, and Office of Naval Research.



# Shipboard Tests

- In situ verification of operation on board, systems compatibility, safety, and endurance.







# Independent Lab Program



- IL applications are reviewed and accepted by the Coast Guard's Engineering Systems Div.
- USCG is working with ILs to ensure quality results with current focus on consistency in testing, best practices, and lessons learned
- Currently, 5 ILs include following locations:  
U.S.A. (MI); Norway; Korea; Netherlands;  
and United Kingdom.



# US Type Approval Status



- 20 systems actively testing
  - 9 Ultraviolet
  - 7 Electro-chlorination
  - 2 Chemical Injection
  - 1 De-oxygenation
  - 1 Ozone
  
- 3 system applications under review at MSC from: Alfa Laval, OceanSaver, and Optimarin.



## TA-related R & D

- Ballast water sampling technology to increase sampling efficiency
- Environmental Technology Verification Shipboard Test Protocol
  - Over 5 years of empirical knowledge and shared lessons learned
  - Protocol Review Meeting in Baltimore, MD



# Next Steps



- Continue to:
  - review Type Approval applications
  - grant Extensions as practically needed
  - accept AMSs as practically needed
- Develop compliance policy
- Remain engaged with stakeholders (EPA, IMO, ship owners, manufacturers and ILs)



# U.S.C.G. Contacts



**Compliance:** E-mail to the Office of Commercial Vessel Compliance at [cgcvc@uscg.mil](mailto:cgcvc@uscg.mil)

**Extensions:** E-mail to the Office of Environmental Standards at [environmental\\_standards@uscg.mil](mailto:environmental_standards@uscg.mil)

**Alternate Management Systems & Type**

**Approval Applications:** Email to the Marine Safety Center at [msc@uscg.mil](mailto:msc@uscg.mil)



# Questions?



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