



WALLENIUS MARINE

Implementing Ballast Water Convention
Sjöfartsseminarium

Göteborg, 2017-03-09



Per Tunell
Head of Tonnage Operation

OBJECTIVES WITH THIS PRESENTATION

Objectives

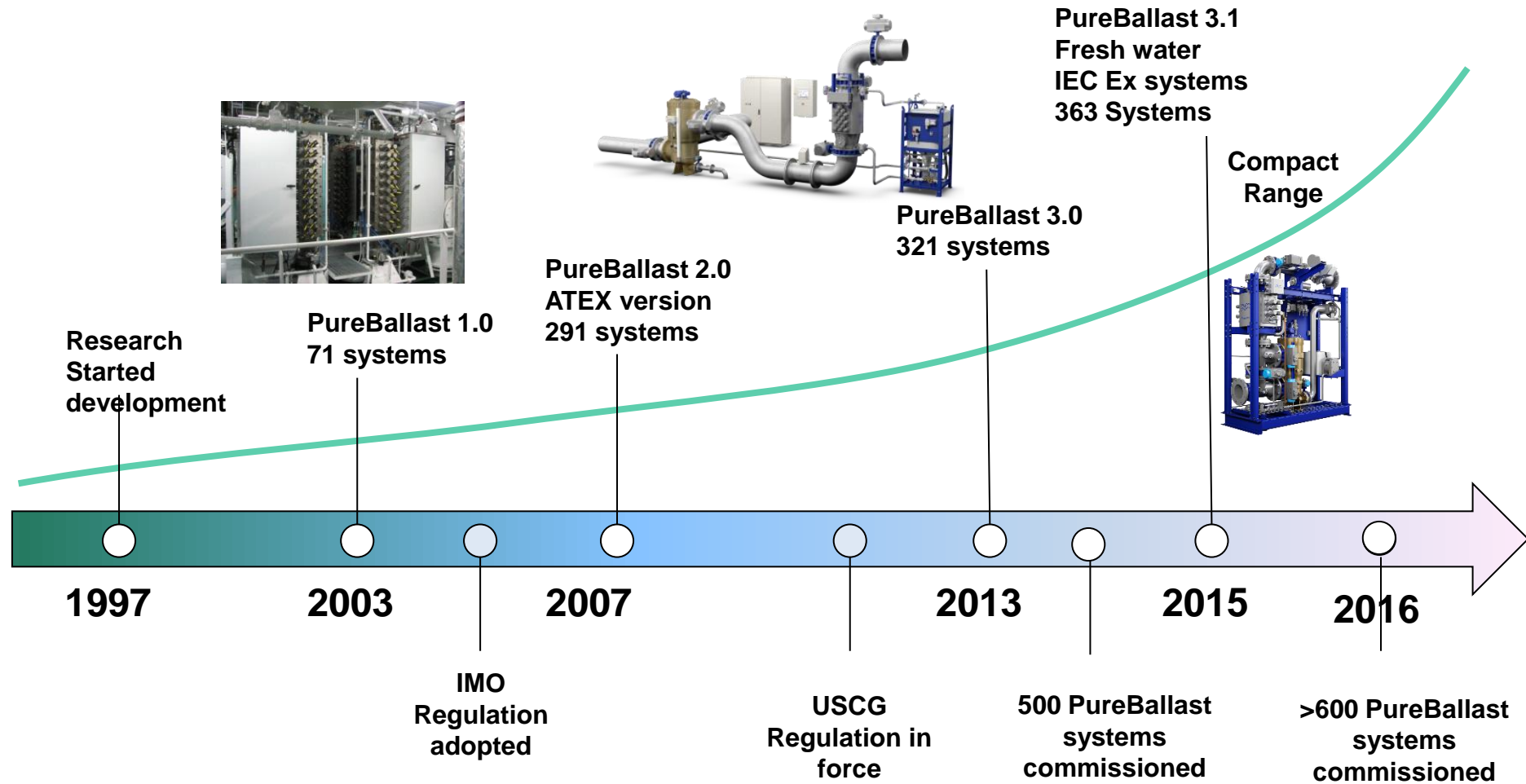
- Why install BWTS?
- What to consider when selecting system?
- When installed, then what?

BASIC PRINCIPLES FOR OUR ENVIRONMENTAL WORK

- **Upstream solutions**
 - Act on the source
 - Not solve one problem by creating another
- **Broader responsibility**
 - Not just follow laws and regulations
- **Lobbying**
 - Ally with the right partners
 - Be a frontrunner – show what is possible
- **Small steps in the right direction**
 - Don't wait for the optimal solution
 - Developable – no dead ends!

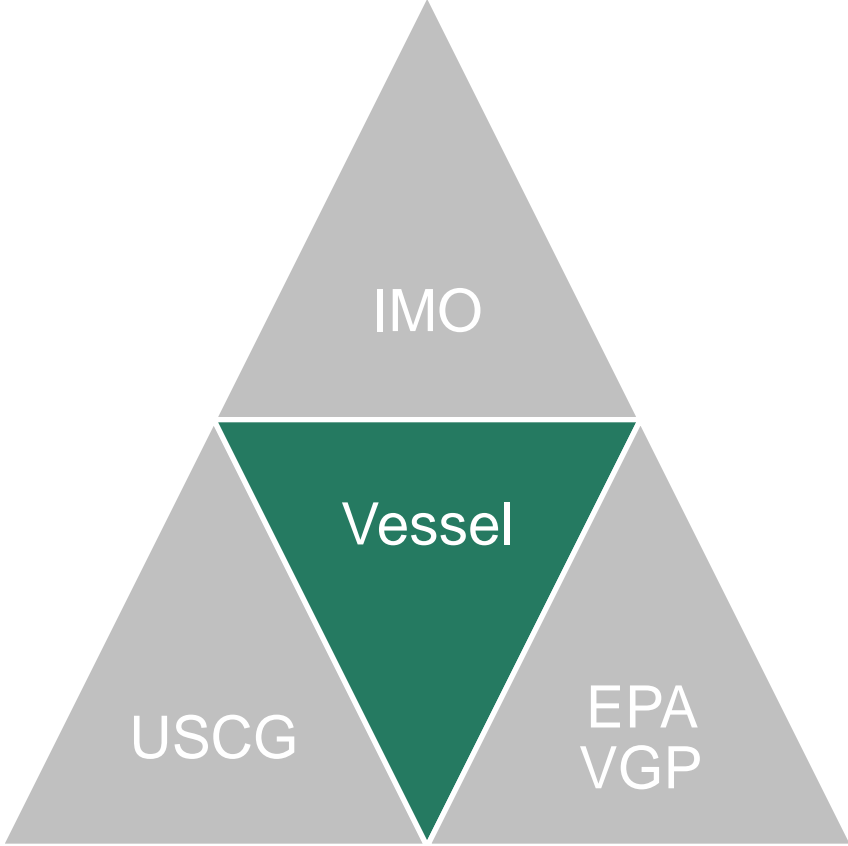


PURE BALLAST DEVELOPMENT



BALLAST WATER MANAGEMENT

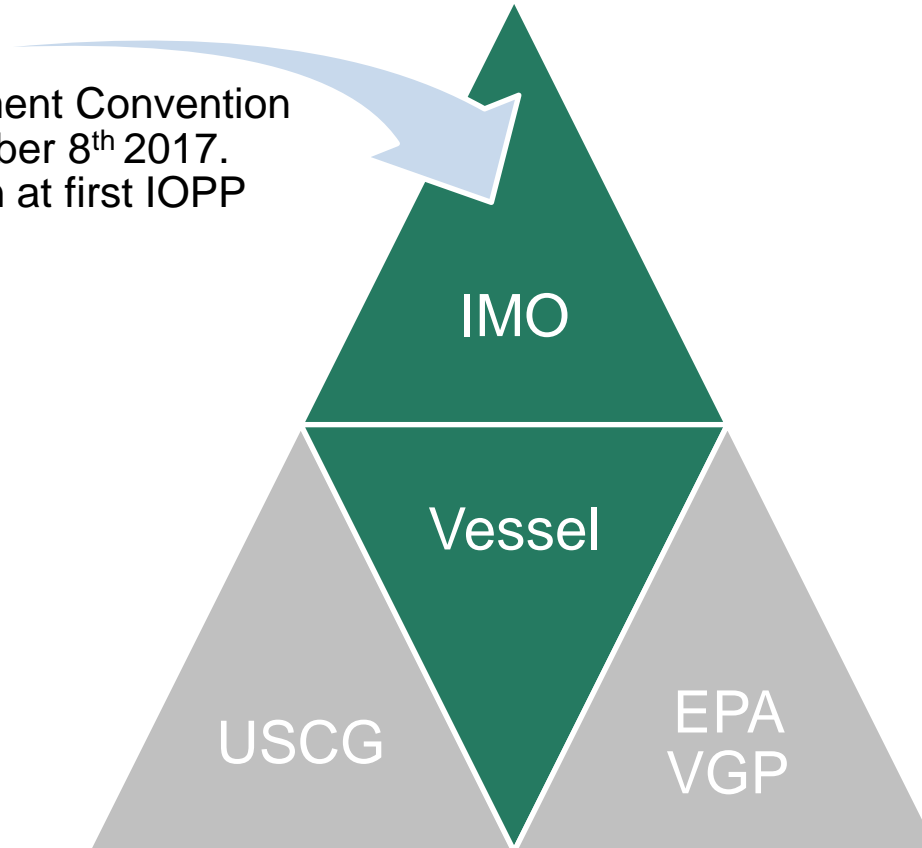
- WHEN & WHO TO COMPLY WITH



BALLAST WATER MANAGEMENT

- WHEN & WHO TO COMPLY WITH

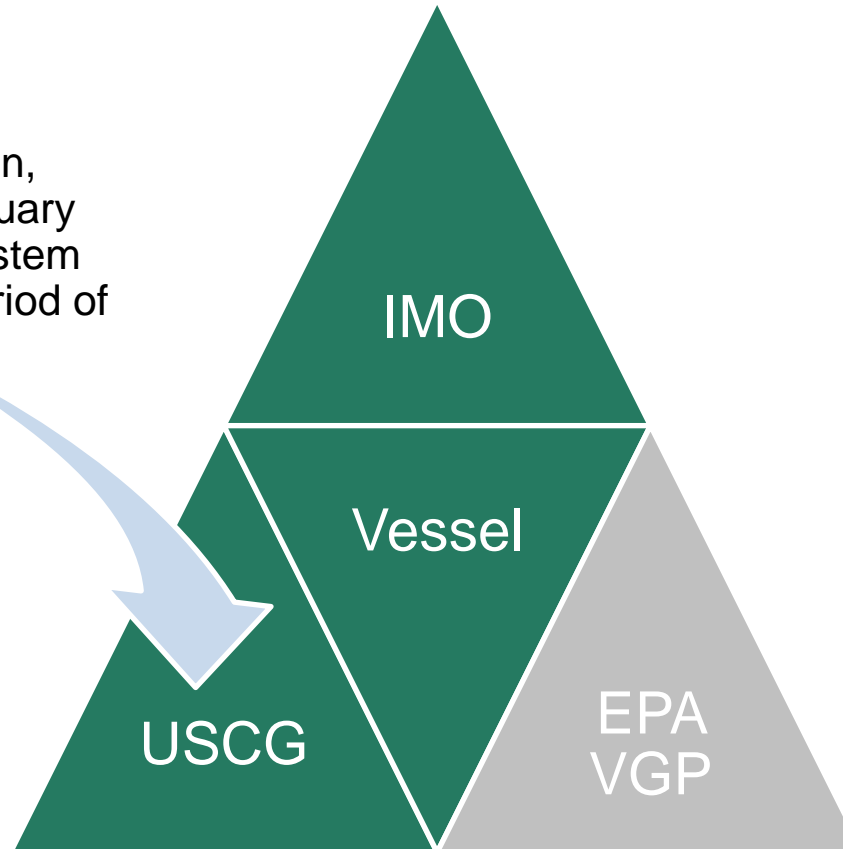
Ballast Water Management Convention enter into force September 8th 2017. BWT system installation at first IOPP renewal after Sep 2017.



BALLAST WATER MANAGEMENT

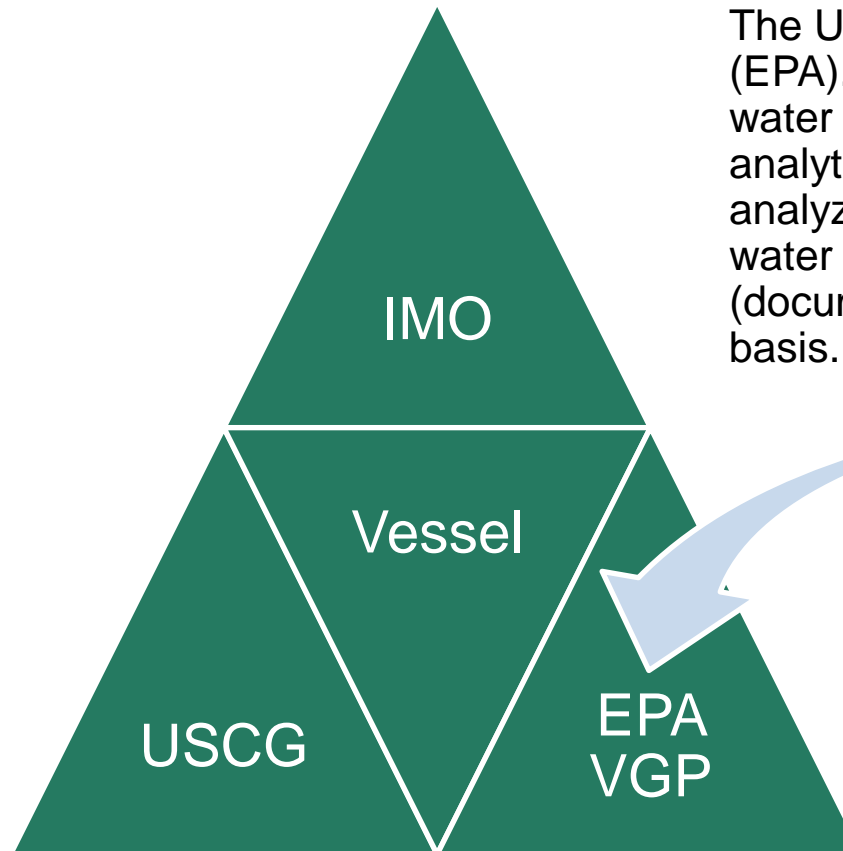
- WHEN & WHO TO COMPLY WITH

The United State Coast Guard Regulations. BWT system installation, first scheduled drydocking after January 1st 2016. Alternate Management System (AMS) can be used in an interim period of time.



BALLAST WATER MANAGEMENT

- WHEN & WHO TO COMPLY WITH



The United State Environmental Protection Agency (EPA). If / when discharging treated (BWTS) ballast water in US waters we are obliged to conduct analytical monitoring per the VGP i.e. sampling and analyze* on yearly basis (first year 2 samples). Also water ballast treatment systems shall be monitored (documented) by competent personnel on a yearly basis. All sensors shall be calibrated annually.

Full compliance

*

- *Total heterotrophic bacteria,*
- *E. coli, and*
- *Enterococci*

BALLAST WATER TREATMENT SYSTEMS

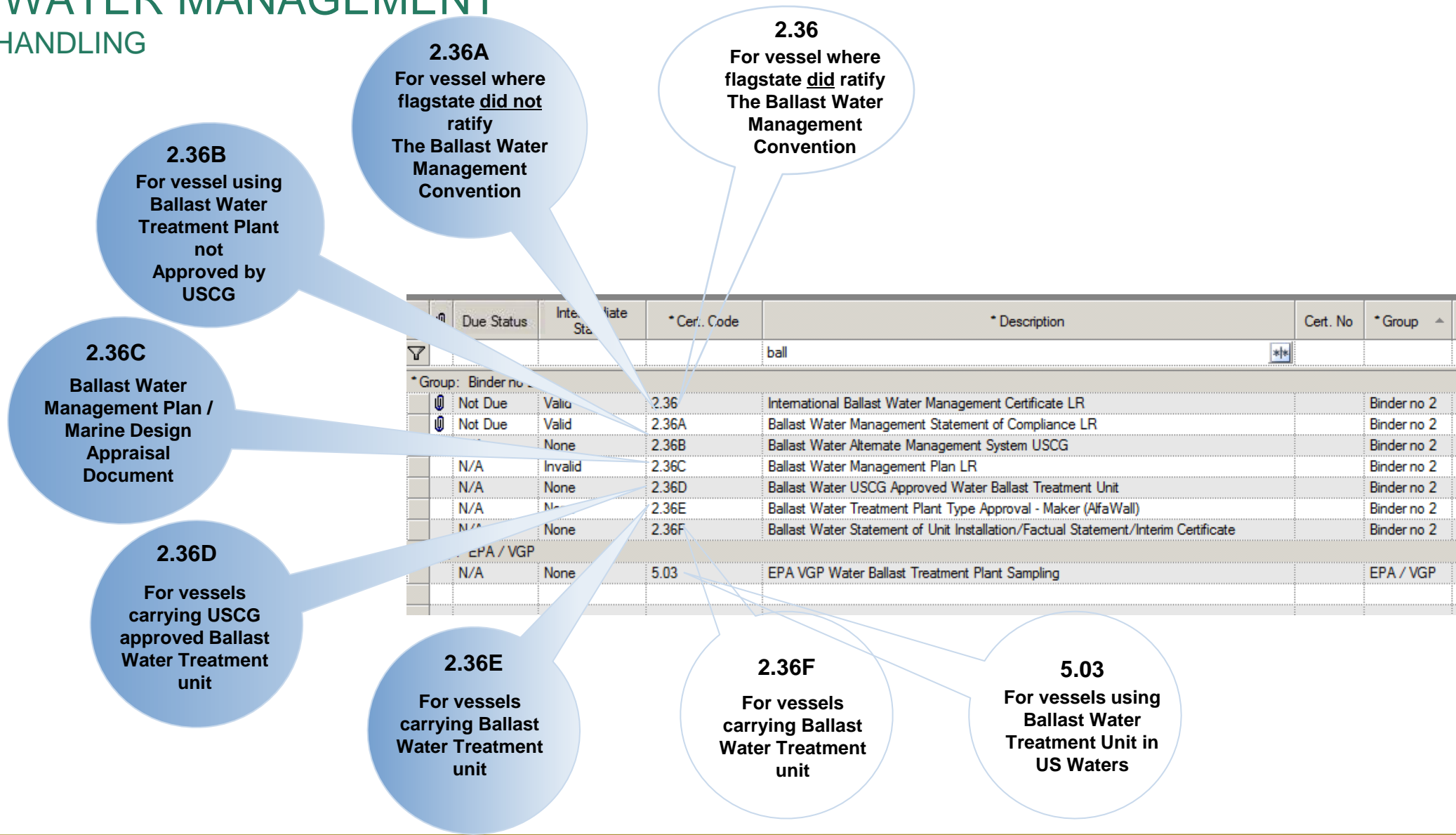
- WHAT TO CONSIDER

- Installation
 - Size
 - Ease of installation
 - Type approvals
 - Cost
 - Availability
- Operation
 - Ease of use
 - Operational costs (energy consumption, chemicals, service)
 - Operational restrictions (salinity, temperature, holding time)
- Reliability
 - System reliability
 - Supplier reliability



BALLAST WATER MANAGEMENT

- DOCUMENT HANDLING



Due Status	International Status	* Cert. Code	* Description	Cert. No	* Group
Not Due	Valid	2.36	International Ballast Water Management Certificate LR		Binder no 2
Not Due	Valid	2.36A	Ballast Water Management Statement of Compliance LR		Binder no 2
	None	2.36B	Ballast Water Alternate Management System USCG		Binder no 2
N/A	Invalid	2.36C	Ballast Water Management Plan LR		Binder no 2
N/A	None	2.36D	Ballast Water USCG Approved Water Ballast Treatment Unit		Binder no 2
N/A	None	2.36E	Ballast Water Treatment Plant Type Approval - Maker (AlfaWall)		Binder no 2
N/A	None	2.36F	Ballast Water Statement of Unit Installation/Factual Statement/Interim Certificate		Binder no 2
EPA / VGP					
N/A	None	5.03	EPA VGP Water Ballast Treatment Plant Sampling		EPA / VGP

BALLAST WATER MANAGEMENT

- RESPONSIBILITIES ONBOARD

Used by Deck department, but placed with the Engine department

Clarify responsibilities when it comes to:

- Ensuring availability
- Maintenance
- Exercising the system (valves etc.)



OBJECTIVES WITH THIS PRESENTATION

Objectives

- Why install BWTS?
 - Reduce environmental footprint!
- What to consider when selecting system?
 - Installation
 - Operation
 - Reliability
- When installed, then what?
 - Get the formalities right
 - Clarify roles and responsibilities