GLOBALLAST REGIONAL TRAINING WORKSHOP
ON COMPLIANCE MONITORING AND ENFORCEMENT (CME)
OF THE BWM CONVENTION
Split, Croatia, 15-16 March 2011

The regulatory and PSC framework in Croatia
ORDINANCE ON BALLAST WATER MANAGEMENT AND CONTROL, 2007

Ivana Marović
Ministry of the Sea, Transport and Infrastructure
Harbour Master Office Split

Objectives:

marine environment protection
reduction of harmful impact
by transfer of
marine spices through
ballast water

Ordinance Applies:

- all the merchant ships, regardless of their nationality, as well as to other vessels and floating facilities built so as to be loaded with ballast water, calling at ports in the Republic of Croatia or navigating the internal waters, territorial sea or Protected Ecological and Fishing Zone of the Republic of Croatia

- shall not apply to merchant ships and other floating facilities and ships which navigate or stay exclusively in the internal sea waters or territorial sea of the Republic of Croatia

Measures :

- BW uptake-precausanary approach
- Ballast Water Management
- Ballast Water Discharge Standard
- Ballast water reporting
- Ship's documentation (BWM Plan)
- BW Control (Port State Control)
- Baseline studies in ports

BW uptake-precausanary approach

Master of the ship must avoid or restrain loading of ballast water in the zones:

- for which the existence of harmful micro-organisms is commonplace
- where industrial discharges are present
- where submarine dredging takes place
- with exceptionally high tide variations
- with high water turbidity resulting from the running of ship propulsion machinery (shallow ports, estuaries, berths)
- spawning of the fish
- of encounter of marine currents.

Ballast water management

- ballast water exchange
- ballast water treatment
- ballast water discharge into reception facilities,
- retaining ballast water on board the ship

must be implemented prior to entering internal sea waters, territorial sea or Protected Ecological Zone of Croatia

Ballast water exchange:

- water exchange must involve at least 95% of the ballast water volume "flow through"

- at least three times per volumetric capacity of each ballast tank discharge/pumping

- at the distance of at least 200 Nm from the land and at sea depth of at least 200 m
- in any case at a distance less than 50 Nm from land and at sea depth of at least 200m

Master of the ship is not bound to implement the ballast water management measures if by doing so, safety of the ship and persons on board might be in danger, or he might further pollute the environment

Reporting and recording the ballast water

- Each ship must have on board, and implement, the Ballast Water Management Plan, according to IMOA 868 (20)
- Any tanker of ≥ 150 GT, other ship of ≥ 300 GT, must report the quantities and origin of ballast water on board the ship to competent Harbour Master Office using the Ballast Water Reporting Form

BALLAST WATER REPORTING FORM

1. VESSEL INFORMATION				2. VOYAGE INFORMATION		3. BALLAST WATER USAGE AND CAPACITY		
Vessel Name:				Arrival Port:		*Specify units below (m3,MT,LT,ST)*		
IMO Number:				Arrival Date:		**Total Ballast water on board**		
Owner:				Agent:		Volume	Units	No.of tanks in ballast
Type*:				Last Port:	Last Country:			
DWT:		GT:				**Total Ballast Water Capacity**		
Flag:				Next Port:	Next Country:	Volume	Units	No.of tanks in ballast
Call Sign:								

***Type codes:**	bulk (**BC**), roro (**RR**), container (**CS**), oil tanker (**OT**), chemical tanker (**CT**), oil/bulk ore (**OB**), general cargo (**GC**), reefer (**RF**), other (**O**)

4. CARGO OPERATIONS:	Total Cargo(Type/MT) to be Loaded		to be Discharged

5. Ballast Water Management:	Total No.Ballast Water Tanks to be Discharged						
Of tanks to be discharged, how many:	Underwent exchange:				Underwent Alternative Management:		
Please specify alternative method(s) used, if any:							
If no ballast treatment conducted, state reason why not:							
Ballast management plan on board:	YES	NO		Management plan implemented:		YES	NO
IMO Ballast water guidelines on board (res A 868 (20))?	YES	NO					

6. BALLAST WATER HISTORY: ***Record all tanks to be deballasted in port state of arrival;*** IF NONE GO TO #7 **(use additional sheets as needed)**

Tank/Holds List multiple source tanks separately	BW SOURCES				BW MANAGEMENT PRACTICES						BW DISCHARGES			
	Date dd/mm/yy	Port or Lat/Long	VOLUME (units)	Temp (units)	Date dd/mm/yy	End Point Lat/Long	VOLUME (units)	% Exch	Method (ER/FT/ALT)	Sea HT (m)	Date dd/mm/yy	Port or Lat/Long	VOLUME (units)	Salinity (units)

5. RESPONSIBLE OFFICER'S NAME (Printed and signature):	

Sampling and testing

- In order to examine the content of ballast water
- Sampling and testing of ballast water must be carried out pursuant to applicable IMO Guidelines

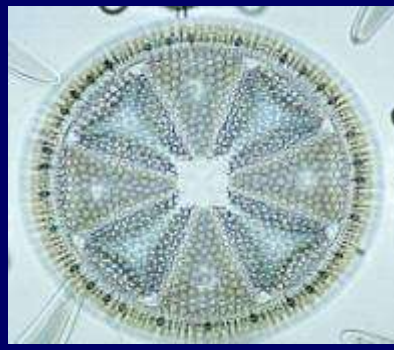
Sampling procedure

- inspector may request approved laboratory to perform sampling and testing
  - On basis of Ballast water report form (quantity/origin)
  - If a ship did not apply one of the ballast water management measures
  - If a ship has started to discharge contaminated ballast water from ballast tanks, cargo tanks and tanks for oily mixtures of oil tankers into the sea
  - If a ship has discharged into forbidden areas of Croatia

Sampling procedure

- Inspector must inform the Master of the Ship sampling plans
- sampling should not result in unnecessary delays of the ship
- samples of water ballast may, on the basis of inspector's order, be taken from the tanks also prior to calling of the ship at port or in course of navigation
- The results of tests on water ballast loaded in a foreign port and conducted by the body or organization authorized for sampling and testing the water ballast in such a port, may be recognized in Croatia

It is prohibited to discharge ballast water if:



- Analysis proves the content of water to include:
  - micro-organisms mentioned in Annex 1
  - cysts, Vibrio cholerae, Escherichia coli, Enterococci
- contaminated ballast water from ballast tanks, cargo tanks and tanks for oily mixtures of oil tankers
- from ships transporting noxious liquid substances in bulk (Annex II to MARPOL 73/78) if ballast water contains noxious liquid substances

It is allowed to discharge ballast water :

- When it does not contain “microorganisms”
- Discharge of clean or separated ballast from ships transporting oil in the bulk when it contains no organisms
- Discharge of clean or separated ballast into the sea from vessels transporting noxious liquid substances in bulk is permissible unless it contains organisms

Example: M/V Romana
Flag: Croatian

- IMO : 8201600
- BT 664, general cargo,
- Built: 29/01/1982
- Inspection: 23.04.2009. ;17:00 - 17:30
- Ship arrived at 15:30, planed loading of the cargo scedduled for 16:00 (but cancelled because of weather conditions)
- Cargo:grain

Ballast Water Report Form

BW SOURCE:			
Tank/Holds	Date	Port	Volume
FP	22.04.09.	BARI	34,5 m3
DB 1 p/s	22.04.09.	BARI	88,78 m3
DB 2 p/s	22.04.09.	BARI	100,5 m3
DB	22.04.09.	BARI	91,8 m3
WT 1 P/S WT 2 P/S	22.04.09.	BARI	NIL
APT	22.04.09.	BARI	NIL
BW DISCHARGES:			
Tank/Holds	Date	Port	Volume
FP	23.04.09.	SPLIT	34,5 m3
DB 1 p/s	23.04.09.	SPLIT	88,78 m3
DB 2 p/s	23.04.09.	SPLIT	100,5 m3
DB	23.04.09.	SPLIT	91,8 m3
WT 1 P/S WT 2 P/S	23.04.09.	SPLIT	NIL
APT	23.04.09.	SPLIT	NIL

Sampling -tanks sampled

No. 1 p/s, double bottom – overflow 88.73m3
No. 2 C, double bottom – pumping 91.8m3

- In site: testing the salinity and temperature in order to establish the origin of ballast water
- Laboratory testing of determining organisms in the ballast water (if any), dissolved oxygen, pH value, Chlorophyll a concentration, determination of phytoplankton and zooplankton species, nutrients and microbiology parameters

Results 26. April 2009.:

- No liable micro-organisms were find
- Low concentration of Chlorophyll a, high concentration of feofitin b, high detritus concentration, low ph value, show well developed process of degradation of organisms.

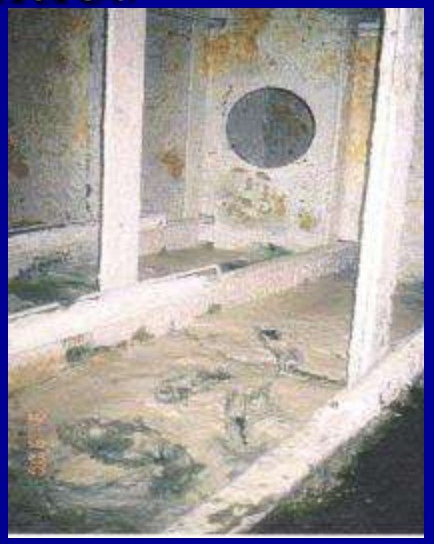
- the expenses of sampling and testing ballast water shall be borne by the ship-owner if ballast water contains micro-organisms or substances which it must not contain; if it does not contain micro-organisms - by the Ministry

Port Baseline surveys

- Port Authorities must conduct port baseline studies in order to determine the state of the sea in port area.
- Port Authority Training – Introduction of CRIMP Protocol and it's implementation, 5. May 2009.
- Development of protocols for Port Baseline surveys according to CRIMP Protocol
- The Ministry has provided in the budget for 2011 funds for PBS in tree ports (Rijeka, Split, Ploče)

The ballast water sediment

- It is forbidden to dump into the sea
- must be collected by mechanical means only, and dumped thereupon in the specially designated land-based reception facilities



Challenges:

- Sampling - expense, availability of laboratories, time of analyses
- Inspection –
  - Development of protocol for ballast water sampling and analyses
  - Development of the data base for Risk Assessment and Early Warning System
  - targeting ships

Forth coming activities :

- Development of National Strategy for Ballast Water Management
- Coordination of development of Port baseline studies
- Further development of legal instruments according to the ratified BWM Convention

Thank you for your attention