

Sampling and analysis of treated BW - pilot exercise in Algeciras Port from 14th to 16th September 2021



**First Meeting of the Joint HELCOM/OSPAR Task
Group on Ballast Water Management
Convention (BWMC) and Biofouling (JTG
BALLAST & BIOFOULING 1-2021)**

Online, 2-3 December 2021

Pilot exercise definition

Aim

Assess coordination between parties involved/concerned in BW compliance audit to validate proper functioning of BWTS, including PSC (Harbor Master and Inspectors), Port Authority, Captains and crew members, and labs

Legal basis,

BWMC art 9.1(c) reads,

(...) a sampling of the ship's Ballast Water carried out in accordance with the guidelines to be developed by the Organization. However, the time required to analyze the samples shall not be used as a basis for unduly delaying the operation, movement, or departure of the ship.

Duration

Duration of the exercise is set for three consecutive days 14th, 15th and 16th

Main parameters of exercise

1. Exercise was inspired by Finish 2018 report '*Indicative ballast water analysis testing for port State control purposes*' by TRAFICOM and followed IMO Guidelines, EMSA protocol and Operating Procedures - Collection of Treated Ballast Water Samples using an Inline Sample Port - Version 1.0 ICES/IOC/IMO
2. Participants included OPPE, CM, APBA, two labs VPC+BeQímica and LUMINULTRA+SGS; and observers EMSA and ALFALAVAL
3. Two container vessels NORDIC LUEBECK and MARY were boarded at respective berths at respective Maersk and TTI container terminals
4. Samples will be taken from the discharge line (preferred over in-tank sampling) and based on an 'open loop' approach. Two random in sequence samples will be taken from each ship ballast discharge
5. Each sample was analyzed both indicatively and in detail; VPC+BeQímica team used Motility and Fluorescence Assay (MFA), Microwise BallastWISE, Netherlands for indicative analyses whereas SGS used Adenosine TriPhosphate (ATP).
6. Indicative and detailed analyses covered both >10 & 50 um and < 50 um size organism, and coli's, enterococci and vibrio cholera bacteria
7. Results fed the Experience Building Phase launched by IMO for a smoothly implementation of BW Convention.

Results

NORDIC LUEBECK

- The count of viable organisms in the relevant size classes and indicator microbes was below the detection limit for the method, and they met the criteria established in the D-2 Standard as stipulated in the International Convention for the Control and Management of ballast water and sediments, 2004.
- Thus, the results showed compliance with the regulations as stated on the 13th of October 2021 jointly by Control Union Industrial Inspections b.v., Vessel Performance Centre b.v. and Be Química Laboratory.

MARY

- From the preliminary analysis, the installed BWMS was not likely to meet the discharge standards as set in the Convention and eventually did not meet them as resulted from detailed analyses and noted by SGS in its report dated on 29th October 2021.

Recommendations

1. Direct **contact to ship** operator and Captain be established as soon as possible
2. **Form** to collect data for sampling in future compliance audits be internationally approved and disseminated
3. Sampling of BW for checking compliance of D-2 standards can be realized in **three hours** provided the crew is familiarized with the BWTS and the sampling team is properly trained
4. Use of **preliminary analysis techniques** are highly recommended to discard detailed analyses
5. **Dedicated room** is provided to conduct such preliminary analyses where materials are positioned and moved as planned (i.e., ban or office).
6. Taking of samples on board, and performing preliminary analyses are both **specialized tasks** which requires trained personnel equipped with sophisticated devices
7. Coordination procedure be designed and applied to **inform next port of call** State party

Plans for possible future actions



- Webinar to disseminate exercise realization
- Training of PSC and PA personnel



Contact

Julio DE LA CUEVA ALEU
Unit for Innovation. Port Operations Directorate
PUERTOS DEL ESTADO-Ministry of Transport, Mobility and Urban Matters
Government of Spain

Email jcueva@puertos.es
Phone 34 915 245 537
Mobile 34 648 977 563



Puertos del Estado

