

Ballast Water Action Programme

EMSA Ballast Water Workshop on Sampling for
Enforcement – Research Results
27th January 2011

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A large, dark blue ocean wave is breaking, with white foam visible at the crest. The background image is partially covered by a semi-transparent blue rectangle containing text.

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Protection**

EMSA will

- *Prepare a review of the Ballast Water Risk Assessment Methodologies and the different ballast water management measures available to the Member States and the Regional Seas Conventions;*
- *Review the need for further guidance on: data collection on ship's ballast water exchange and on invasive species in ports; the granting of exemptions; and, the identification and implementation of additional measures, following the completion of Action 1;*
- *Produce a joint briefing note (EMSA/DG Environment/DG TREN) on the relationship between approval for ballast water technologies that use active substances under the Biocides Directive, the proposed Biocides Regulation and the Ballast Water Management Convention's Guidelines;*
- *Host a workshop to identify how a joint EU ballast water sampling strategy can be developed;*

- *Investigate how funding can be obtained to "Develop a technical co-operation and short term secondment programme to enhance cohesion and parity on ballast water sampling and analysis within the Member States";*
- *Investigate how ballast water management information and best practice can be shared electronically between all Member States;*
- *Actively participate in the North Sea Ballast Water Opportunity project;*
- *Maintain liaison with DG Environment and the EEA over the introduction of non-indigenous species through ballast water discharge, to ensure that there is continuity between this Action Plan and the European Communities work in this area. EMSA will also react to requests for input into these programmes when necessary; and,*
- *Maintain a watching brief on developments at the IMO and within the Member States, and contribute to the important work of the Regional Seas Conventions. EMSA, through the European Commission, will also react to requests for input into these programmes when necessary.*
 - **OSPAR and Barcelona Convention Work.**

Sampling for enforcement:

BWM Convention – obligation to sample – large discharge
Guidelines G2 - no common test – no common interpretation
of results

Agreed with commitment to further guidance – Sampling
Protocols – included an Aide Memoire

EMSA – 1st Ballast Water Workshop - November 2008

2nd Ballast Water Workshop – Sampling – February 2010

EMSA asked to Contribute this to IMO to use as a baseline for
further work at BLG 15

Key Principles

- What exactly are we trying to sample?
- Ideally – systems that don't meet the D-2 Standard:
- Issues
 - Focussing on the minuteness of the standard;
 - Issues forming Barriers;
 - Practical Issues
 - Representativeness/Homogeneity
 - Inherent accuracy
 - Logistics
 - Liability – undue delay – 'pseudo detention'; and
 - Cost – how many in reality? Access issues? Standby?

Issues discussed:

- existing principles/sampling programmes;
- sampling from the perspective of PSC;
- issues faced by PSC;
- existing sampling methodologies for compliance control;
- statistical/biological issues wrt representativeness;
- homogeneity;
- different sampling protocols;
- suitable sample volumes and timing of the sample;
- sample handling and concentration;
- the pro's and con's of indicative/representative sampling;
- the procedures needed for indicative sampling;
- how to progress from indicative to representative sampling;
- experiences gained from shipboard testing and analysis of samples for Type Approval; and
- the preparations needed for sampling.

Draft guidance on Sampling for Enforcement –

- Introduction / Application / Definitions;
- Preparing for Sampling for Enforcement;
 - Indicative and Representative;
- PSC – Stopping the Discharge;
- Potential Options for Management following discovery of Clear Grounds that the Ship is not meeting the BWM Convention's Requirements;
- Indicative Sampling;
- Boarding the Ship And Sampling;
- Representative Sampling
- How to Manage Pre-Identified Problems;
- Analysis of the Sample;
- Post Sampling Procedures; and
- Interpretation of the Results.

Research

3 Issues- 2 Projects:

- how to undertake indicative analysis/sampling to provide “clear grounds” for stopping a discharge and/or enforcement;
- how to test a discharge from a BWTS and a ballast water tank to ensure that the results are representative of the entire discharge; and,
- the development of guidance for how to analyse a sample.

Research Project 1: Testing Sample Representativeness of a Ballast Water Discharge and developing methods for Indicative Analysis

- overcome the concern that a system may not work immediately after beginning the treatment of ballast water;
- overcome the concern that systems will not deal with “spikes” in organism numbers arising from stratification in the ballast water tank; and,
- to recommend a sampling protocol that is representative of the entire discharge.

Specifics – UV/AS
Treated and Non Treated Waters

Deliverables:

- develop various sampling protocols to sample organism numbers in treated ballast water being discharged from a ship;
- recommend a ballast water sampling protocol that is representative of the entire discharge;
- analyse whether the BWTS could meet the D-2 Standard throughout the discharge;
- Analyse whether “instantaneous” or “average” testing will have a bearing on the procedure used to obtain a representative sample;
- identify and develop potential indicative analysis/sampling methods - “clear grounds”/further testing; and,
- analyse how these indicative analysis methods relate to representativeness and how the results can be utilised in sampling for enforcement.

Research Project 2: The Development of Guidance on How to Analyse a Ballast Water Sample

To formalise a procedure for analysing a ballast water sample for compliance purposes.

- Research into type approval analysis and other analysis methods;
- Best practice;
- Statistical methods; and,
- Instantaneous/ Average Issues.

Way forward:

- 3 Papers – one bulky (12/11/10), 2 Refer to Research (10/12/10) and contain guidance;
- Informal document circulated widely and informal discussion MEPC 61;
- Finalisation of Sampling Guidance Autumn 2010;
- Research – Late October 2010;
- Submission to EC – Council Shipping Working Party – Papers agreed (EC plus 26 MS) and submitted to IMO
 - Request to EMSA to run this workshop, present findings to help MS prepare for BLG 15;
- Everything on EMSA Website -
www.emsa.europa.eu



Thank you



Ballast water sampling with thanks
to Mahle and GoConsult



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