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THE REPUBLIC OF LIBERIA

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Procedures for providing Type Approval of Ballast Water Management Systems (BWMS)

Introduction

As a result of concerns with regard to the lack of robustness of the current resolution MEPC.174 (58) on *Guidelines for approval of ballast water management systems (G8)*, the Liberian Administration is conducting additional assessment of currently approved BWMS to identify possible operational limitations.

Class Societies carrying out surveys for issuance of the International Ballast Water Management Certificate have been instructed to verify that the BWMS installed on board has been issued a Type Approval Certificate by Liberia.

The Liberian Administration is using guidance in BWM.2/Circ.43 when conducting additional assessment of type approved BWMS intended for installation on Liberian flagged ships to verify:

- .1 operation in different salinity ranges (fresh, brackish and marine water);
- .2 operation in different temperature ranges (cold, temperate and tropical) in which the BWMS will operate, noting that there is a possibility of residual toxicity following a chemical treatment in cold water;
- .3 operation with respect to different sediment loads under which the BWMS will operate, noting that some filtration systems forming an integral part of the BWMS cannot cope with increased sediment loads and many BWMS inherently rely on the efficiency of the filtration for efficacy of treatment;
- .4 operation of the minimum effective treatment flow rate as well as the maximum treatment
- .5 that tests have been carried out to determine the impact of the BWMS on corrosion and coatings fall within the standards established in resolution MSC.215(82), Performance Standard for Protective Coatings (PSPC);
- .6 that safety and hazard assessments of the installation, operation and maintenance of the BWMS on the shipboard test have been carried out along with mitigation measures;
- .7 that all laboratory-scale and, if appropriate, full-scale land-based test results and documentation are made available, including all unsuccessful, failed and invalid tests; and
- .8 that all shipboard test results and documents are made available, including all unsuccessful, failed and invalid tests as well as detailed information of the test set up and flow rate at each test cycle.

Type Approval Certificate

For issuance of the Type Approval Certificate, the Liberian Administration has set the following requirements and provisions:

- .1 the validity of the approval will be limited and revisited as appropriate;
- .2 in due time before the expiration of the approval, the manufacturer should prepare a report detailing the experiences with the system, including the results of any scientific research relevant to the system, tank coating, as well as any results of port State controls, if available;
- .3 the occurrence of any unexpected harmful consequences of the operation of the BWMS should be reported by the manufacturer to the Administration immediately;
- .4 where the BWMS does not meet any of the operational requirements set out above, the appendix to the Type Approval Certificate will include details on all imposed limiting conditions on the operation of the BWMS. Such limiting conditions will include any applicable environmental conditions (e.g. salinity, UV transmittance, temperature, etc.) and/or system operational parameters (e.g. min/max pressure, pressure differentials, min/max total residual oxidants (TRO), etc.);
- .5 an annex to the Type Approval Certificate will contain the test results of each land-based and shipboard test run. Such test results will include at least the numerical salinity, temperature, flow rates, and where appropriate UV transmittance. In addition, these test results will include all other relevant variables;
- .6 the Type Approval Certificate will specify the components of the BWMS that are type approved, including the manufacturer of each component, their operating ranges, including temperature, specific salinity and specify the possibility to use other similar components (like filters for example) and the criteria for allowing such use;
- .7 a separate Type Approval Certificate will be issued for each type or model of the BWMS;
- .8 all accidents (e.g. accidental exposure, leakage) related to the BWMS should be reported by the manufacturer;

Requesting Type Approval Certificate

Manufacturers of BWMS installing treatment systems on Liberian-registered ships should contact the Technical Department at +1 703 790 3434 or technical@liscr.com for additional information on the type approval process.
