



**CERTIFICATE OF APPROVAL
FOR FIRMS ENGAGED IN
COMMISSIONING TESTING OF BALLAST WATER
MANAGEMENT SYSTEMS**

Certificate No. : **23TZ431**

Approval No. : **23BW020**

THIS IS TO CERTIFY that

Varuna Marine Services BV

Kraaipanstraat 46 1091 PM Amsterdam NETHERLANDS

is approved as a firm engaged in commissioning testing of ballast water management systems under the Society's Rules for Approval of Manufacturers and Service Suppliers incorporating IACS UR Z17, as amended.

This certificate is valid until **5 November 2028** subject to periodical assessment.

Issued at Tokyo on 6 November 2023.

See the conditions on the reverse.

NIPPON KAIJI KYOKAI



(M. Inoue)

General Manager of Survey Department

This is to certify that the firm has been periodically or occasionally assessed in accordance with the regulations of Chapter 2, Part 1 of the Rules for Approval of Manufacturers and Service Suppliers.

Due Range of Periodical Assessment: between 6 November 2025 and 5 November 2026

<i>Periodical Assessment</i>	<i>Date</i>	_____
	<i>Signature</i>	_____
		Surveyor to NIPPON KAIJI KYOKAI
<i>Occasional Assessment</i>	<i>Date</i>	_____
	<i>Signature</i>	_____
		Surveyor to NIPPON KAIJI KYOKAI

Conditions for Approval:

1. The firm is engaged in the analysis listed in the attachment.
2. The service has been properly conducted and reported in accordance with the requirements of the Rules and the relevant Regulations.
3. Where there is any alteration to the service approved by this certificate, the Firm should notify immediately to the Society.

Attachment to
 Certificate Number 23TZ431

Organism size class	Indicative analysis (Method / Type of Equipment/ Manufacturer)	Detailed analysis
≥50 μm	ATP / B-QUA Plus / LuminUltra	Microscopy
	Pulse counting FDA / BOS CLEAN PLANKTON / COSCO (Weihai)	
	Motility and Fluorescence Assays / BallastWise / MicroWISE	
≥10 and <50 μm	ATP / B-QUA Plus / LuminUltra	Microscopy
	Pulse counting FDA / BOS CLEAN PLANKTON / COSCO (Weihai)	
	Motility and Fluorescence Assays / BallastWise / MicroWISE	

Subcontractor for Detailed analysis:

- Marchwood Laboratory Services Pte Ltd
- Centro de Biologia Experimental Oceanus LTDA
- Eurofins Mechem Pte Ltd

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