

# TECHNICAL CIRCULAR No. 309 of 7th December 2015

To:	All Surveyors/Auditors
Applicable to flag:	All Flags
Subject:	BWM Convention-Type Approval-Echomarine
Reference:	BWM Convention

## BWM – Final Approval Granted-Ecomarine

## Ecomarine-EC BWMS & ECS-HYCHEM Ballasting Overview

It was reported that a total of 57 ballast water management systems have been type approved to comply with the Convention's D-2 biological standard. Final approval was granted by the Committee at this session to one system.

#### Ecomarine-EC BWMS

Submitted by Japan (MEPC 68/2/5 – Fig 1), this system consists of filtration (50  $\mu$ m), isinfection by in situ electrolysis, followed by neutralization with sodium thiosulfate to not more than 0.2 mg/L (as Cl2).

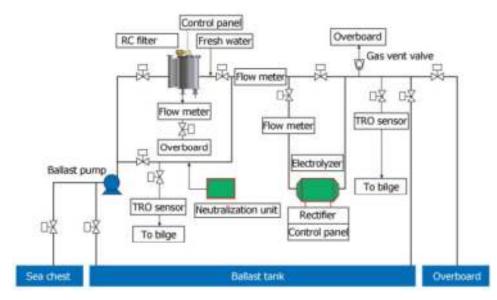
**Customer Service Center** 

5201 Blue Lagoon Drive, 9™. Floor, Miami, Fl., 33126 Tel: 1 (305) 716 4116, Fax: 1 (305) 716 4117, E-Mail:

**Technical Head Office** 7111 Dekadine Ct. Spring, Tx., 77379 Tel: 1 (832) 451 0185, 1 (713) 204 6380

joel@conarinagroup.com

E-Mail: cbozenovici@vcmaritime.com



# Fig 1 – Ecomarine –EC BWMS

The Active Substance, sodium hypochlorite, is produced where water temperature and the salinity are 5 to 35°C and above 1 PSU, respectively. The maximum concentration of sodium hypochlorite after being dosed into the main line is controlled at 2 mg/L TRO as Cl2.

## **Basic Approvals Granted**

Basic Approval was granted by the Committee for five systems:

# 1) ECS-HYCHEMTM System

Submitted by Republic of Korea (MEPC 68/2/2 –Fig 2), this system employs a backwash filter unit mounted directly in the main ballast pipeline to eliminate the organisms and suspended matter larger than 40  $\mu$ m. Auto-back-flushing occurs when the difference between inlet and outlet pressure of the filter exceeds 0.5 bar.

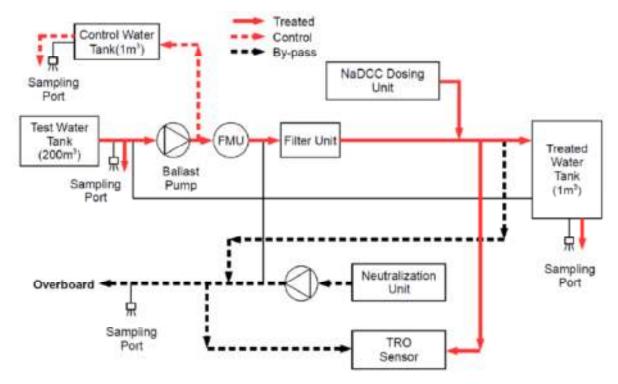
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## Fig 2 – ECS-HYCHEM Ballasting Overview

The system's Active Substance, sodium dichloroisocyanurate, is dissolved with water to generate hypochlorite and sodium isocyanuric acid. Its concentration is maintained at not more than 18 mg/L as Cl2 during treatment. It is neutralized with sodium thiosulfate so that the total residual oxidant (TRO) concentration prior to discharge of treated water is not more than 0.2 mg/L as Cl2.

REFERENCES:

- BWM Convention

ATTACHMENTS: No.

Kindest Regards, Cosmin Bozenovici Naval Architect – Conarina Technical Head Office

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