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To:	All Surveyors/Auditors
Applicable to flag:	All Flags
<b>Things to Know about BWTS Installation</b>	
Reference:	BWM

**Things to Know about BWTS Installation**

**The implementation of the Ballast Water Management Convention (BWMC) has been a hot topic these days, especially since there are many uncertainties surrounding the issue such as applicability dates, and installation costs.**

Following the BWM Convention’s entry into force on September 8, it is estimated that tens of thousands of ships will be required to install ballast treatment systems.

The Ecochlor® BWTS uses a two-step process that includes filtration and treatment with chlorine dioxide (ClO<sub>2</sub>). Ecochlor is the only company utilizing the patented chlorine dioxide (ClO<sub>2</sub>) treatment technology for ballast water and does not require treatment or neutralization on discharge. The technology is effective on all aquatic invasive species regardless of turbidity, salinity or temperature.

A shipowner should plan almost a year for proper preparation. This would include but not be limited to initial feasibility study, engineering/integration design, class approval, fabrication, and then finally installation and commissioning of the ballast water treatment system. In order to ensure it is a smooth process, it is essential to engage the vessel’s classification society early in the process. This can be arranged with an outside engineering firm specializing in ballast water treatment or the shipowner’s in-house team. Key stakeholders need to put together an experienced support team to facilitate planning of the project.

The system drawings will provide the piping, electrical and structural pre-fabrication design. Once approved by the classification and flag society, these drawings will be used to develop a list of owner-supplied materials and Ecochlor will begin the production of the BWTS and any pre-fabricated parts for the treatment system.

For large tankers in Turkey or China, the installation can be performed over a period of 25 days while the vessel is at the shipyard undergoing repairs. This estimate assumes the shipyard is using a team with experience in the installation of the Ecochlor system; additional days may be needed for commissioning and training. Of course, for bulkers or smaller vessels, the time required for

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installation could be much less. Delays can be caused by other work projects, bad weather, holidays, etc. Time can vary significantly depending on the complexity of the vessel and other projects scheduled during the shipyard period.

Shipowners should be aware of the complexity of a retrofit beyond just choosing a treatment system and allowing time to schedule, not only shipyard time for the installation, but also engineering services with firms that are experienced in BWT installations, as well as time for design review and compliance with classification and flag societies.

The vessels with mid-to-high ballast water flow rates, typically 1,000 m<sup>3</sup> /hr or more are targeted. The higher the flow rate, the better.

#### REFERENCES:

- BWM

#### ATTACHMENTS: No.

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