With the entry into force of the IMO Ballast Water Management Convention on 8 September 2017, a substantial number of vessels are required to install a Ballast Water Treatment System (BWTS) by 8 September 2024. This technical news provides some practical recommendations on how to effectively install a system on time.

DNV GL has worked closely with the industry to support a smooth implementation of the BWM Convention. Below, we provide some hands-on advice on how to go forward:

**Ship owner’s checklist**

The most important tasks for a ship owner/operator to do now – in order of priority:

- **Establish an overview of IOPP renewal dates** for your fleet, and decide on a schedule for implementation.
- **Retroactive Requirements (RR):** for your individual vessels, compare your overview of IOPP renewal dates with specific RR messages posted in MyServices in Veracity. This overview helps you to manage due dates and necessary actions to ensure the proper follow-up of the retrofit requirements (e.g. RR Ref. 1034f, RR Ref. 1034g and MO Ref. 287).
- **For ships that have done IOPP renewal between 8 September 2014 and 7 September 2017:** The BWMC Reg. B-3.10.1 applies and the D-2 compliance date is the first IOPP renewal after 7 September 2017.
- **For ships that have done the last IOPP renewal before 8 September 2014:** check your fleet, especially laid-up vessels, and verify whether the last IOPP renewal survey was done before 8 September 2014. If this is the case, the first IOPP renewal after 7 September 2017 should be completed before 8 September 2019 (ref. Reg. B-3.10.2). This allows you to take full advantage of the due date for D-2 compliance, which is then on the second IOPP after entry into force. Otherwise, the BWMC Reg. B-3.10.1.1 applies and the D-2 compliance date changes; it will then become the first IOPP renewal after 7 September 2019. Appendix A illustrates this. Some owners will get the surprise of IOPP renewal and, at the same time, installing a BWTS when bringing vessels from lay-up to active trading.
- **Assess and choose treatment technology based on its feasibility for your fleet.** Choose the technology which has a **Type Approval Certificate** accepted by the flag state.
- **Plan your retrofit,** and ensure relevant documents are forwarded to class as early as possible.
Beware: Normally it takes 6 to 9 months from ordering the system, 3D scanning and design, and class approval of installation drawings, to installation and commissioning.

Approval Process
The approval of the installation drawings depends on their quality and the quality of the design, which again is reflected in the understanding of the rules, both statutory and class. DNV GL has developed a list of required documents (a DocReq) for the different types of treatment technology. This lists a minimum of drawings that should be submitted for approval. The document will be sent upon request when applying for approval. The approval process should be initiated at least 3 months before scheduled installation to account for handling any comments.

Below is a list of items which, based on our experience, requires attention by owners and designers:

- **Type and model of the BWMT system**: name and model of the system must be clearly stated in all documentation.
- **Valid Type Approval Certificate (TAC)**: all systems shall have a valid TAC, issued by the flag or accepted by the flag of the vessel, e.g. issued by an RO to the flag (or has otherwise formally acknowledged the TAC).
- **Stripping**: procedures for how to treat the ballast water coming from the ballast tank during operation and equipment for stripping must be clearly described.
- **Bypass in general and gravity bypass**: all bypasses shall be logged and give an alarm.
- **Sampling ports for D-2 compliance (biology)**: sampling pipe details, location and access to sampling ports.
- **For systems using active substances** (G9 systems, e.g. Electrolyzer, Chemical, or Ozone.): location and capacity of ventilation and monitoring of dangerous gas/liquid in the space of installation should be considered.
- **BWM Plan**: This should, as a minimum, contain what is in our template; see template “BWM plan template for D-1 and D-2” at dnvgl.com/bwm (needs to be re-approved for ballast water treatment if only D-1 has previously been approved).

When all documents have been approved and the system has been installed, there must be a commissioning and an initial survey by a DNV GL surveyor. If everything is in order, the surveyor will issue the International BWM Certificate (IBWMC) (with the box “D-2” ticked off).

**Recommendations**
- Review the “Ship owner’s checklist” as per above – and take action!
- Start the approval process in due course – and at least 3 months before installation.
- Ask class, flag and manufacturers in case of questions.

**Reference**
DNV GL BWMS installations and retrofit page

**CONTACT**
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DATE – Direct Access to Technical Experts via My Services on Veracity.
Otherwise:
Email us at statutory@dnvgl.com

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**APPENDIX A**

**Req. B-3.10.1:**

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**Req. B-3.10.1.1:**

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**Req. B-3.10.2:**

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