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**POLICY PAPER ON
“BALLAST WATER AND SEDIMENT MANAGEMENT FOR DREDGERS”**

This paper provides information and clarification on the Ballast Water Management approach on hoppers dredgers and stone dumping vessels in order to maintain compliance at all times with the BWM Convention during mobilisation, project execution and demobilisation of equipment. This information is meant for organisations and persons involved in (hopper) dredging and stone dumping activities; for Organisations and persons such as, but not limited to, (dredging) Clients, Flag States, Port’s State Controls, Recognised Organisation (RO’s) such as Classification Societies and Dredging Companies and Marine contractor’s using similar equipment.

Executive Summary

- The European Dredging Industry is operating a large fleet of ships worldwide in order to construct and maintain ports and waterways, to execute coastal protection, land reclamation and environmental remediation projects.
- The operational profile of this fleet, particularly for hopper dredgers and stone dumping vessels, is not always the same compared with the traditional merchant fleet, and consequently have an effect on how Ballast Water Management is carried out on board during mobilisation, demobilisation and when operation in a project area.
- With regard to the management of ballast water and sediments, the European Dredging Industry is committed to comply to the international, EU and national legislations.
- EuDA has prepared this paper to inform all concerned/involved parties in such projects and support its members for maintaining Ballast Water Management compliance with the off-standard operational profile of their ships.



Ballast Water Management Convention

The main purpose of the IMO Ballast Water Management Convention (BWM) is to avoid invasive alien species being transported from one location to another through ballast water and ballast water sediments.

The Convention entered into force on 8th of September 2017 and is applicable for all ships propelled and non-propelled.

BWM defines a discharge standard and through various working methods/procedures and/or installation of BW treatment equipment compliance with the BWM is secured.

The IMO MEPC meeting 62 decided and confirmed by BWM.2/Circ.32, dated 15 July 2011 that “water in a hopper was considered not to be ballast water” (see Circ. Annex text quote-unquote below)

BWM.2/Circ.32

Quote

APPLICABILITY OF BALLAST WATER MANAGEMENT CONVENTION TO THE WATER IN THE HOPPER AREA OF THE HOPPER DREDGERS

- 1. Hopper dredgers can be equipped with one or more large suction pipes, a cargo hold in the form of a hopper, several ballast tanks as well as multiple high-capacity pumps. The "hoppers" are the cargo compartments where the dredged material is contained and transported. Hoppers are not considered to be ballast tanks. For stability requirements, the "hoppers" are not considered to provide buoyancy. The hopper wall forms part of the vessel hull for construction requirements, and it has the same thickness requirements as the outboard hull.*
- 2. According to Article 1.2 of the Ballast Water Management Convention, "**Ballast Water**" means water with its suspended matter taken on board a ship to control trim, list, draught, stability or stresses of the ship. Water in the hopper is considered as outboard water, i.e. the water is not taken aboard. Furthermore, the water is not used to control trim, list, draught or stresses of the ship. For that, water present in the hopper area is not considered as ballast water.*
- 3. Consequently, the Committee concluded that the provisions of the Ballast Water Management Convention are not applicable to the water in the hopper area of the hopper dredgers.*

Unquote

1. Introduction

The Ballast Water Management Convention (BWM) requires all ships to implement a ballast water management plan. All ships have to carry a ballast water record book and are required to carry out ballast water management procedures to a given standard.

As the operational profile / modus operandi of hopper dredgers and stone dumping vessels is different from the “standard” merchant fleet. EuDA took the initiative to harmonise the approach, concepts, wording of their members BWM plans of hopper dredgers and stone dumping vessels with regard to the implementation of the IMO BWM procedures.

2. Operational profiles

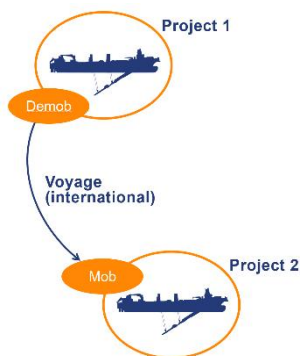
Hopper dredgers are used for maintaining waterways and ports as well as for constructing new maritime infrastructure for which soil/sand/sediment needs to be (re)placed. Hopper is the hold of hopper dredgers where dredged materials are loaded.

Stone Dumping Vessels are used for construction and repair of breakwaters, for cables/pipeline protection and for seabed preparation.

Both types of vessels have two separate modus operandi that will require a different approach in view of the management of ballast water:

1. Voyage to or from a project.

2. Operations in a project area.



For various operational reasons, including safety and environment, a high capacity ballast water intake and discharge in tanks is needed during the different phases of dredging operations in a project area.



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The reasons for high capacity ballast water intake and discharge in tanks are, but not limited to:

- maintaining manoeuvrability (DP) by ensuring bow thruster funnels are submerged;
- decreasing risk for damage to propeller, rudder and bottom during dredging and sailing operations in, often very, shallow water;
- avoid slamming¹;
- compliance with the Ship Energy Efficiency Management Plan (SEEMP) to, for example, optimise vessels trim in loaded and unloaded condition;
- obtaining a zero trim condition to avoid unnecessary overflow spillage and siltation during loading of hopper, (environmental impact of operations);
- control of the stone dumping process (flow control).

Normal ballast pumps do not have sufficient (operational) capacity to fulfil these additional objectives and therefore hopper dredgers and stone dumping vessels require a higher capacity of ballast intake and discharge during operation.

3. Compliance in project area

The uptake and subsequent discharge of the ballast water from the same location is, by legislation, not subject to ballast water management providing no mixing with unmanaged ballast water from other areas has occurred. The operating boundaries of this same/project area might be designated by local authorities and/or supported by an environmental impact study and risk analysis.

Reference is made to Regulation A-3-5 (exceptions) of the BWM Convention:

“The discharge of ballast water and sediments from a ship at the same location where the whole of that ballast water and those sediments originated is permitted, provided that no mixing with unmanaged ballast water and sediments from other areas has occurred.”

If mixing has occurred, the ballast water taken from other areas is subject to ballast water management in accordance with the BWM Convention.

By reason that hopper dredgers and stone dumping vessels are designed for relocating soil/sand/sediment/stones as mentioned in the introduction the project area can be considered a “same location” for the purpose of the BWM Convention.

Procedures to comply with both *modus operandi* need to be foreseen and described in the ship specific BWM plans of concerned vessels in order to maintain compliance with the BWM Convention.

Please note:

The local authorities will always have the final decision whether the project area can be considered as same location for the purpose of the BWM.

¹ Slamming is the impact of the bottom structure of a ship onto the sea surface. It is mainly observed while sailing in waves, when the bow raises from the water and subsequently impacts on it. Slamming induces extremely high loads to ship structures and is taken into consideration when designing ships.



4. Conclusions and recommendations

1. There are two separate modus operandi to consider when checking the compliance of hopper dredgers and stone dumping vessels:
 - during mobilisation to and demobilisation from a project and
 - during operations in a project area
2. EuDA members have aligned their procedures/working methods with relevance to the BWM for both modus operandi and included these, where deemed necessary, into in their company/ship specific BWM plans.
3. BWM is implemented by the local authorities (Flag State or Port State) and cooperation with these authorities is essential in order to mutually understand how the hopper dredgers and stone dumping vessels operate, what the main points of attention are and how the ballast water in the vessels needs to be managed to be compliant at all times with the BWMC.
4. Retrieving information with relevance to BWM from the local authorities is point of attention when planning/starting a project with concerned vessels.



EuDA

Having celebrated its 25th Anniversary in 2018, the European Dredging Association (“**EuDA**”) was founded in 1993 as a non-profit industry organisation for European dredging companies and related organisations to interface with the various European Union’s (“**EU**”) Institutions and also some International Organizations (such as IMO, HELCOM or ILO). EuDA members employ approximately 25,000 European employees directly “on land and on board of the ships” and more than 48,300 people indirectly (through the suppliers and services companies). The combined fleet of EuDA’s members counts approximately 750 seaworthy EU-flagged ships.

Dredging activities are not well known by the wider public, but as a matter of fact, the European dredging companies, members of EuDA, are world market leaders with about 80% share of the worldwide open dredging market and a turnover of 8.6bn Euro in 2018. Although 70% of operations take place outside Europe, 90% of the returns flow back to Europe.

The Association assists its members with all kinds of requests related to dredging issues, presently strongly focusing on Social, Environmental, Technical and Trade issues. These issues are coordinated by the Secretariat and executed by its specialised working groups composed of experts from the member companies.

EuDA has registered as Interest Representative Nr 2492574893-58 under the EU transparency register. The Association will pursue its goals by endorsing policies to create fair and equitable conditions for competition; commits to respecting applicable national, European and international rules and regulations; commits to operating its fleet safely, effectively and responsibly.