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To: All Surveyors/Auditors

Applicable to flag: All Flags

Plastic Pollution

Reference: MARPOL

Plastic Pollution

The industry must limit plastic pollution from grey water waste streams with the same regulatory control it has in place for sewage.

Grey water, that is to say domestic waste other than sewage, is largely unregulated. Yet it can form the larger percentage of water discharged overboard by ships. On the other hand, sewage, which is arguably less environmentally harmful, is subject to very stringent regulatory control.

Grey water is defined as wastewater from domestic or commercial sources that has not encountered toilet waste – typical sources of grey water are bathrooms, kitchens and laundry operations. Black water – sewage – is tightly regulated, by IMO and other bodies. But there are no international regulations for grey water discharge, and this is seen by many as a significant omission from the MARPOL convention.

There is a point of view that grey water is potentially more environmentally harmful than sewage. Black water, after all, is basically organic. But grey water can contain oils, fats, detergents, chemicals and greases, not to mention plastics.

Scientific research has shown that even supposedly clean water contains significant amounts of microplastics and nanoplastics. Much of this results from the breakdown of larger plastic items. A lot has its origin in cleaning liquids and pastes, facial scrubs, toothpaste, shampoos and similar products. This is a relatively new phenomenon, but there is a move to ban the use of plastics in such products. Several countries, including the U.K., have already prohibited the manufacture of

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toiletries and cleaning products containing plastic particles.

However, the fact remains that there is no international legislation to prevent the discharge of grey water waste into the oceans. Black water is regulated, but grey water is not. Some special areas – like the Baltic - have rules dealing with all types of waste from ships, but these are market-driven, not regulatory.

The existing regulation, MEPC 227(64), although entering into force as recently as January 2016, effectively deals only with sewage effluent standards and treatment, and is itself based on outdated 1970s legislation.

The current media focus is on plastic pollution, but grey water from ships and other sources contains many other elements which can cause untold harm to the marine environment, and which need to be dealt with effectively before the waste water can be discharged. Laundry waste, for examples, contains fibres, which should be filtered out.

Any ship has the potential to produce a large amount of harmful grey water which can, legally, be discharged overboard. In the case of cruise ships, the problem is magnified many times over. It is not merely influenced by the number of persons onboard – water temperature, operational periods of galleys and laundry rooms, density of galley water, detergent content and several other factors all need to be taken into consideration when specifying a complete wastewater treatment system.

Of all the wastewater treatment streams, fats oils and greases are one of the most difficult to manage and treat effectively, as well as being the single biggest contributing factor to wastewater treatment failure.

REFERENCES:

- MEPC 227(64),

- ATTACHMENTS: No.

kindest Regards,
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