Kawasaki Kisen Kaisha, Ltd.

https://www.kline.co.jp/en/csr/environment/efforts/seapolution.html

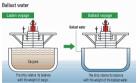


Policy for the future:

"The industry's leader in protection of the ecosystem is set as one of the 2050 targets in the long-term environmental management vision, ""K" LINE Environmental Vision 2050 – Securing Blue Seas for Tomorrow –". As a shipping company, we believe that oil pollution accidents on ships will lead to the greatest destruction of the ecosystem, and we make safety in navigation an important management issue from the viewpoint of service quality and environmental protection. In addition to working on the appropriate management of ballast water (see the figure below) and "Satoyama" preservation activities on the owned land, we also implement pollution control measures such as the adoption of environmentally friendly hull paint and the reduction of SOx/NOx in exhaust gas. Since low carbon contributes to ecosystem maintenance, we aim to reduce GHG emissions in half by 2050. Our policy is that we will continuously aim to realize a sustainable society and business, and will respond to the requests of all stakeholders and promote "environmentally integrated management".

<Examples>

We installed ballast water treatment equipment that complies with international treaties. We work on minimizing the impact on ecosystem by implementing ballast water management ahead of regulations.



* Microorganisms are transported with ballast water from the cargo discharging ports, which may destroy the ecosystem of the loading ports where the ballast water is discharged. We continue to make maximum efforts such as replacement in the open sea before the rules starts.

* Ballast water: Seawater loaded on the ship as "weight" so that the hull can maintain an appropriate depth when no cargo is loaded (left figure).

> Decision to install an automatic kite system "Seawing" using wind power on board



- * "Seawing" which AIRSEAS separated from AIRBUS developed is an equipment that uses natural wind power to assist propulsion and is expected to save about 20% of energy. We are working on further performance improvement by sharing with our ship and operation management system 'K-IMS'.
- "Satoyama" preservation activities in the owned forests The forest is regenerated by cutting bamboo thickets and undergrowth and shining light in the dark forest. (Collaboration with Chiba University Student ISO Committee)



<Future issues>

- Since oil pollution accidents have a significant impact on ecosystem, avoiding oil pollution accident is a continuous important issue as a shipping company. We aim to enhance further safety in navigation by introducing the latest technology such as automatic navigation system.
- Since global warming also have a serious impact on ecosystem, we will work to spread kites (left figure) and LNG-fueled ships, and proceed to reduce GHG emissions from ships. Ultimately, we aim to achieve decarbonization in the second half of this century by introducing zero-emission ships using unrealized technologies.
- ➤ Regarding the issue of marine plastic waste, while discharge from cargo ships have already been banned by regulations and strictly complied with, it is still a problem that we cannot overlook, as an entity which makes the sea a place of business, and we would like to cooperate with investigations.

<Message for society>

When we express our initiatives to biodiversity in a word, "Our responsibility as a shipping company to hand over fertile and beautiful sea to the next generation."