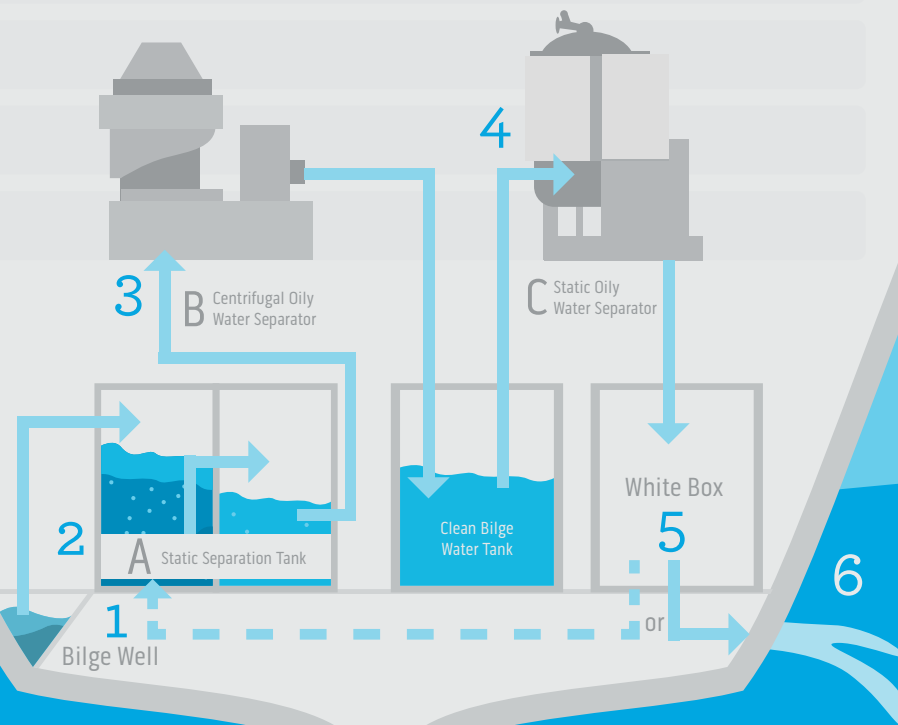


Cruise Ship Bilge Water Treatment



1 Bilge Well
Collects water and any oil from the machinery spaces below decks

2 Filtration Process A
Static Separation Tank: Oil rises to the top and is pumped into separate tank for recycling.

3 Filtration Process B
COWS [Centrifugal Oily Water Separator]: The separated water passes through a spinning vortex to remove smaller oil particles for recycling.

4 Filtration Process C
SOWS [Static Oily Water Separator]: Final filtration process where any remaining oil particles are collected. Final filtration process where any remaining oil particles are collected for recycling. Measures water purity.

5 White Box
Measures water purity to meet/exceed environmental standards. Oil content must be less than 15 parts per million.

6 Release
Only water treated by triple filtration process and cleared by the White Box is permitted for legal discharge into the ocean, outside coastal zones. Water not cleared goes back through the filtration process.

Only one oily water separator (OWS) is required by environmental law, however Princess Cruises® operates two per ship, fleet wide.

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