



Development of small scale pilot for ballast water treatment assessment

Executive Summary

The unwanted noxious or pathogenic living species introduction areas now increasing, mostly due to the development of maritime transport. This is particularly true in Europe.

The compliance to the IMO A868 resolution about ship's ballast water management (i.e. exchange at high seas), although not always possible, appears insufficient to avoid the noxious or invasive marine organism introductions in coastal waters.

In 200 ships sample, the occasional presence of *Vibrio cholerea* and *Pfiesteria piscida* (particularly toxic dinoflagellates) in ballast water, sediments and even tank biofilms gives an idea of the threat for coastal economy and public health.

In most cases the ballast water (and sediment) treatment could be the only solution to the problem. None of the present treatments or treatment systems are completely satisfactory, giving opportunities to researchers and designers to find new ways or improve the existing.

Before investing huge amount of money, the ship owners will ask for effective and reliable systems. Therefore, the first critical point will be the assessment stage. A system as close as possible to the real conditions aboard a ship, except the size has been designed, built and tested during this period but further work and development is still required.