

## NEWS RELEASE

### **Ecospec ULF Wave Technology Has Once Again Proven Its Effectiveness – Treating Ballast Water**

**Singapore, September 23, 2016:** The Semb-Eco ballast water treatment system (BWTS), an IMO type approved system utilizing the Ultra Low Frequency (ULF) wave technology, is the lowest powered G8 ballast water system in its class.

The low power consumption is one of the most noteworthy features but not all. The system is by far the only one able to pass the highly challenging tropical waters. Its ability to treat turbid waters where it is impossible without very high power in conventional UV systems is another remarkable advantage of using the Semb-Eco system. The most exceptional, is the ability to meet United States Coast Guard (USCG) prescribed testing methodology: the CMFDA/FDA method. This is achieved through the application of the patented ULF wave technology.

The Semb-Eco BWTS comprises a self-cleaning filter, the main biofouling control (BFC) unit and a supplementary UV reactor. The intake ballast water passes through the filter to remove the larger organisms and particles. The filtered water is then exposed to low intensity UV irradiation from low pressured UV lamps. In the final stage, the ballast water passes the BFC unit emitting the ULF wave. It is the synergistic effect of the ULF wave and the low intensity UV light exposure that disrupt the living cell metabolic activity, DNA of microorganism cell, and inhibiting reproduction ability thus achieving the above mentioned challenges. Without the ULF wave treatment will consume so much power that it is practically prohibitive to use.

At press time, the Semb-Eco system has already achieved all consecutive passes for seawater cycle under the USCG acute mortality requirement for ballast water discharges.

