

After the sale: OPEX of an Ecochlor BWTS

By Tom Perlich, Ecochlor founder and president

The sale and installation of an Ecochlor ballast water treatment system (BWTS) begins a relationship that will last for the life of the vessel. Ecochlor will maintain continuous interaction with the vessel in order to coordinate the re-supply of chemicals that will be schedule approximately every six months. If time allows, during the resupply activity a trained technician can review the system, identify and recommend any maintenance needed, and perform any preventative maintenance the system requires. Shipowners have stated that this frequent review by our technicians provides them with “regulatory piece of mind.”

Ecochlor’s experienced technicians are directly involved in the early operation of the system and training the crew on the treatment system. Also, we have started the process of developing video and web-based training.

The Ecochlor® BWTS is automated and simple to use. Shipboard engineers can verify that the system is working correctly through the use of the human machine interfaces (HMI) and programmable logic controllers (PLC) located in the control panels. The HMI allows the viewing of a series of screens that permits crew members to monitor the Ecochlor® BWTS operation. If operational parameters are not met prior to, or during system operation, warning and alarms are in place to indicate which parameters are not within

specification. If necessary, our engineers and technicians can access the system remotely in order to assist in fault diagnosis. However, ship owner cooperation and support is necessary to achieve this access.

The Ecochlor system requires very little periodic maintenance. During commissioning a preventative maintenance schedule is provided to the crew in the O&M Manual. Maintenance activities are scheduled on a frequency ranging from 18 to 60 months and involve routine inspection activities. It is recommended that the ship have some key spare parts on board, but they will also have the availability to get them in specific ports globally. Through our Technical Service Agreement, an autho-

rized Ecochlor representative, will resupply the chemicals. Consequently, there is no crew involvement or any need to evacuate the vessel. The entire process is closed, using specially selected equipment and trained personnel with no direct human contact to chemicals. Additionally, we have signed an agreement with Drew Marine to assist us in providing logistics support for the resupply of our BWTS precursor chemicals at designated ports and harbors around the world.

Operational costs for the Ecochlor system are limited to the cost of the precursor chemicals and the cost of fuel. Precursor chemical pricing starts at \$0.08 per cubic meter of treated ballast water. The amount of fuel required is minimal and will depend on the flow rate and power requirements of the system, estimates based on typical operation range from about \$25 to \$200 USD in annual fuel costs.

Last year, Christian Johnsen, Chief Officer of the MV Moku Pahu shared his thoughts about using the Ecochlor BWTS onboard his vessel. He stated, “The Ecochlor system has worked well for us in that, it’s relatively small footprint was easily retrofitted into our existing ballast system, it uses an almost negligible amount of electrical power and works effectively in all water conditions, including the sediment filled, biologically saturated waters off Chittagong, Bangladesh. Ecochlor has shown their commitment to our system by reliably providing support, scheduled service and chemical resupply as needed.”



12 YEARS AT SEA

The Ecochlor® Ballast Water Treatment System: proven effective and reliable for over 12 years at sea. Meets or exceeds USCG and IMO standards. All USCG Type Approval testing is complete.



Ecochlor System: Simple operation, rugged construction, unique technology.

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