

'Filter addiction' compromises oily water separators

Peter Lanzén, founder of Marinfloc, Sweden looks at problems associated with bilge water separators

Little has changed in oily water separators (OWS) in the last 15 years. Then, they did not work. I, for one, believed that the problems would be solved by 2010, but despite now having an IMO resolution for OWS in the form of MEPC 107(49) nothing has really changed.

15 years ago the problem with OWS was that they were tested and approved to be able to deal with oil and water only which made them all near-useless as the major part of the bilge water is emulsified, thanks to the use of different chemicals and chemical additives.

2005 saw MEPC 107(49) which requires the OWS to be tested with an oil/water/ emulsion called Test fluid C, so far so good. However this test is only 150 minutes long which effectively means that OWS manufacturers merely have to make sure that the OWS 'survives' the 2½ hour emulsion test in order to achieve type approval.

During 2004 the most manufacturers

installed new and better filter cartridges to their old OWS and "voilà" - the new MEPC 107(49) OWS was born. So from that day an OWS will perform for 2 ½ hour and then what?

The conclusion after five years is that the consumption of filters has increased dramatically onboard and the engineers have to change filters in the OWS every week and sometimes even more frequently. The consequence is a sky-high cost for new filters and man hours, as well as the cost of disposal of filters ashore.

Sustainable technology

If the bilge water is heavily contaminated the OWS will not work at all. Many shipowners and their technical representatives have long been aware of these filter issues, and as a result try to stay with older OWS approved under the previous resolution MEPC 60(33) for as long as possible.

During the three years it took to revise MEPC 60(33) the committee still missed the most important thing, namely 'sustainable technology'. When an item like an OWS is

tested, the test should be repeated a number of times in order to make sure that the equipment will work over a prolonged period rather than a ridiculous 2½ hours. If we compare the test procedure for a sewage treatment plant which goes back to the mid 1970s, it has to operate and perform in a 10 day test. The test requirements for OWS should of course be the same.

Only four makers of OWS today live up to 'sustainable technology' and these four makers are represented onboard less than 10% of all ships. There are more than 40.000 ships in the global fleet using OWS that do not work as they should, and most fail to work at all, leaving the engineer onboard responsible for finding a solution. I am not surprised to read frequently about ships detained, shipping companies paying heavy fines and engineers imprisoned.

Now, just as 15 years ago, if you give the engineer the right tool he will do the right job. An engineer would never be supplied with a plastic wrench, so why with an ineffective OWS?