



SAFETY ALERT - TECHNICAL No.25

POTABLE WATER SYSTEMS

An issue has come to our attention concerning a number of vessels recently constructed in the Far East regarding the onboard chlorination of potable water resulting in excessive amounts of copper, lead and zinc to leach into the potable water system. The levels exceed those set by the WHO for human consumption.

It is suspected that the high levels of contamination were due to the use of fittings and accessories in the potable water system that were not to the required standard.

Section 2.25.5 of the Instructions for the Guidance of Surveyors on the Survey of crew Accommodation in Merchant Ships states that all fittings and accessories used in the construction of ships' freshwater plumbing systems should be of a type which do not leach out toxic constituents or provide a habitat for bacteria which can occur in the case of natural rubber, various plastics, and fibre accessories. It is a requirement, in line with the policy adopted by all shore side Water Authorities in the United Kingdom (under the United Kingdom Water Fittings Bylaws Scheme), that all materials used in freshwater systems should be attested. These are listed in the current edition of the Water Fittings and Materials Directory (revised annually) prepared by the Water Research Centre, Henley Road, Medmenham, Marlow, Bucks SL7 2HD. Such materials would include: pumps, valves, 'o' rings, seatings, compounds, pipes, shower mixers, taps, calorifiers and all other sundry items. When a vessel is constructed or refitted abroad, fittings or materials validated by a local material agency to be of an equivalent standard may be acceptable, given that suitable documentary attestation is available.

If doubt exists then owners are advised check that the fittings and accessories fitted to potable water systems on their vessels comply with the above and if necessary to take the appropriate action to remedy the situation.

In the event of any queries owners are requested to contact their Customer Service Manager for advice.