

REVISED IMO GUIDELINES ON WATER MIST SYSTEMS PUT EMPHASIS ON MAINTENANCE AND PERFORMANCE

Design, installation, commissioning and maintenance all have an impact on safe operations, but owners must understand that no two installations are the same.

Shipowners and operators should be aware of amendments to the existing International Maritime Organization circular MSC.1/Circ 1432, related to the maintenance and inspection of fire protection systems and appliances. These amendments, contained in MSC.1/Circ 1516, were adopted by the 95th Maritime Safety Committee in June 2015. They state that in addition to scheduled onboard maintenance and inspections, the manufacturer's own maintenance and inspection guidelines should be followed.

The adoption of the amendments comes as a consequence of an analysis by the Sub-Committee on Ship Systems and Equipment which found that even when recommended guidelines were followed, not all water mist and sprinkler systems were performing as expected.

The quality of water in automatic sprinkler systems is of particular importance and shall be maintained in accordance with manufacturer guidelines, the committee said, and a record of water quality should be kept onboard.

There are several amendments covering the maintenance and inspection of water mist, water spray and sprinkler systems and as Erik Christensen, Global Technical Solution Manager at Wilhelmsen Technical Solutions explains, whether choosing a new system or maintaining an existing installation, owners should be aware of the differences between systems and their operational profiles.

"Water mist is a very generic description, covering systems with different configurations, components and pressures. Hence they have different maintenance requirements, in contrast to sprinkler systems which are quite similar regardless of the make," he explains.

Crew Training is Key

The Marshall Islands Flag has reported that the US Coast Guard detained more than 40 foreign-flagged vessels due to inoperative water mist systems, which were found to be in manual rather than automatic mode when inspected.

The increase in detentions underscores the importance of having water mist systems fully checked, verified and in satisfactory working order. Christensen says these problems are most likely the result of crew not understanding the importance of the correct maintenance and operation of the system.

“Problems like this are very much about the training and instruction given to the crew, and is something Wilhelmsen Technical Solutions focus on by providing detailed guidance as part of the system commissioning,” he says.

“To ensure that customers are working to the latest advice and information, we train our commissioning and service personnel on a regular basis. This means that when they go onboard a ship they can update and assist the crew to maintain the system correctly. In return, we get feedback from our teams and from crews that we incorporate into our procedures.”

Selecting the Right Supplier

All water mist systems from serious makers perform well when installed and maintained correctly. For a water mist system to perform properly and to meet regulatory requirements, attention must be paid to the specific requirements of design, installation and maintenance.

“Experienced manufacturers understand how to manage technical issues like positioning of strainers and filters, but the right operating procedure is also vital. If dirty water is put into the system it may clog and will be almost impossible to clean out. There is also a risk that corrosive water will reduce the lifetime of the system components and generate corrosion products,” he explains.

In general, low pressure systems consist of standard components which are less sensitive to impurities and easier to maintain than high pressure systems.

“The best strategy when looking for a water mist system that meets regulatory requirements and performs to the right specifications, is to contact a supplier with the necessary experience to design reliable systems and provide clear maintenance routines that keep the system operational”.

Unitor XFlow® Water Mist System

Since 2012, Wilhelmsen Technical Solutions has supplied the Unitor XFlow water mist fire-fighting system. Unitor XFlow is a state-of-the-art, low pressure water mist system with a combination of fine and very fine droplets. Using the patented XFlow nozzle technology, this low pressure system can provide protection of rooms up to 5,000 m³ – a size which traditionally has required a high pressure system.

The system is performance-based, meaning that its suppression capabilities are verified at an independent test facility to an IMO performance standard. In addition to machinery spaces, water mist fire-fighting systems can be specified for accommodation areas.

To ensure a fully operative Unitor XFlow system at all times, customers can sign up for service agreements with Wilhelmsen Ship Service or Wilhelmsen Technical Solutions which include inspections, repairs and crew training.

Ends

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About Wilhelmsen Technical Solutions

Wilhelmsen Technical Solutions deliver compliant fire prevention and suppression solutions that protect your assets and your people. *Wilhelmsen Technical Solutions is part of Wilhelmsen Maritime Services, a Wilh. Wilhelmsen Group company.*
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