

# PASSENGER SHIP TECHNOLOGY

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## *Viking Star* goes to sea

River cruise specialist launches into ocean cruising



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from satellites and enable us to upscale our Internet bandwidth.”**

Ian Rabbidge, head of propositions, P&O Ferries, see page 45



# Promat leads the way on passive fire protection

A holistic approach to fire protection on ferries and cruise ships, whereby passive protection is considered as important as active systems, is the way forward according to fire protection solutions specialist Promat International.

Giorgio Lauro, marine segment manager at Promat, pointed out that fire protection regulations over the last decade have mainly focused on developing safer active systems and increasing redundancy, to reduce the risk of non-performance in a fire hazard. "However, active systems mean more equipment on board, increasing complexity, weight and maintenance

costs," he told *Passenger Ship Technology*.

And he raised the question of whether the passive fire protection regulations in the Solas Convention should be updated. He said: "The highest passive protection standards are A60, meaning 60 minutes of structural fire protection and insulation to allow persons on board to follow escape routes and abandon the ship in the event of a fire.

"This standard refers to the first safety regulation that was established at the time when Solas came into force, in 1974. At that time, ships' dimensions and the number of passengers were very small compared with today's

giant cruise ships, where more than 6,000 people are hosted in 350m long vessels. There may be a case to revise the standard and establish a more feasible evacuation time in the event of fire."

Recent application of Solas Regulation 22 requires three hours' capability for main vital systems to be operational in the event of fire exceeding the threshold defined in Solas Regulation 21.3, where there is the loss of one main vertical zone. "However there is inconsistency with the requirements that state the insulation and fire protection should be A60," explained Mr Lauro.

By taking a goal-based approach to intrinsically safe ship design, using high performance fire insulation at the vertical and horizontal boundary of each zone in combination with the use of non-combustible furniture, Mr Lauro believes that it is possible to build non-combustible passenger ships. He pointed out that Promat's Promaguard A240 Plus solution, for example, can achieve in excess of 4 hours' insulation in the event of fire, without affecting the weight and space saving criteria. All Promat's products are fire rated under the EU's Marine Equipment Directive (MED certified).

"Of course, active systems cannot be dropped, but could be focused on the fire load created by passengers' property as well as on machinery space and engine rooms where the risk of fire is higher," Mr Lauro commented.

For large cruise ships, he advocates the concept of the ship's total survivability from fire (a naval vessel concept) which considers not only passenger and crew safety but also the protection of the ship as property.

Promat says that it has devoted expertise from its extensive experience in the fire protection of large buildings such as hospitals, airports and exhibition centres, oil and gas facilities both onshore and offshore, and tunnels to provide solutions in the marine market to achieve the highest degree of passenger safety and asset protection. **PST**



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