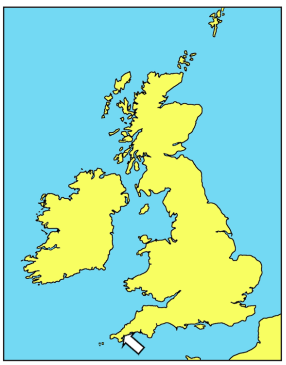
SYNOPSIS



At approximately 1913 on 2 February 2010, a fire broke out in the auxiliary engine room on board the Bahamas registered roll-on roll-off passenger ferry Oscar Wilde. The ferry had just sailed from Falmouth, UK, after completing her annual docking. The seat of the fire was in way of the auxiliary engines' fuel supply module and quickly spread across the compartment. The fire was eventually extinguished by the ship's crew at 2100. There were no passengers on board and none of the ship's crew were injured. However, the fire caused the vessel to lose electrical power, which ultimately required her to be towed back into Falmouth for repairs.

As part of the fire-fighting effort, the fixed local application (water-mist) fire suppression system, and the total flooding (high-expansion foam) and bilge (low-expansion foam) fire-extinguishing systems were activated, but did not extinguish the fire. A second fire broke out on the deck above the auxiliary engine room and smoke spread to adjacent compartments, including the engine control room, and remote passenger accommodation areas.

The fire occurred when a pressure regulating valve's actuator diaphragm ruptured and fuel oil sprayed onto an exposed high-temperature surface on an adjacent auxiliary engine. The diaphragm failed because it had been manufactured from rubber that was not resistant to oil. The fire was not extinguished by the high-expansion foam total flooding system because rust and scale within the dry pipe network had clogged the foam distribution nozzles and prevented the production of foam. The performance of the local application water-mist and bilge foam systems was adversely affected by inadequate maintenance. The fire spread to an adjacent compartment due to the absence of thermal insulation.

Following the fire, MAIB issued a Safety Bulletin which included a recommendation to the owners of ships fitted with high expansion foam systems utilising the atmosphere from within a protected space, aimed at ensuring similar corrosion issues were identified and rectified. In April 2010, the Bahamas Maritime Authority (BMA) brought to the attention of the International Maritime Organization (IMO) sub-committee on fire protection (FP), the need to urgently review current requirements for the installation and testing of the distribution piping of high expansion foam systems using inside air.

Further recommendations have been made to the BMA aimed at: increasing international awareness and recognition of the hazards posed to personnel by high-expansion foam; verifying Oscar Wilde's compliance with the SOLAS structural fire protection requirements, and; providing assurance that the vessel's fixed fire-extinguishing systems can be relied upon in an emergency. A recommendation has been made to Lloyd's Register to make its clients aware of the circumstances of the fuel system failure. Irish Ferries has been recommended to fully implement changes to its fixed fire-fighting systems as recommended by the system manufacturers.