

SYNOPSIS



Figaro was preparing to pass through the Traffic Separation Scheme between Lands End and the Isles of Scilly with a cargo of vehicles on 6 December 2007. The weather was poor and the sea was the roughest that the vessel had encountered for some weeks. At 1629, *Figaro* landed heavily in the swell, causing the vessel to shudder. At the same time, CO₂ gas from the fire smothering system was released into the engine room and three of the four cargo zones. Crew in the affected compartments were able to escape without injury, but the CO₂ gas caused the main engine and auxiliary generator to shut down.

The vessel began to drift towards Wolf Rock and the master requested the Coastguard to provide tug assistance. It was apparent that there was a risk of *Figaro* striking Wolf Rock, and the Coastguard mobilised the local lifeboat, an Emergency Towing Vessel (ETV) and put two rescue helicopters on standby.

After an early unsuccessful attempt, the engineers on board *Figaro* were able to restart an auxiliary generator. However, without the main engine, the master decided to accept a tow from the ETV. Maintenance work was being conducted on the forward mooring equipment, which meant that it could not be used to help rig the tow. The ETV was unaware of this and had prepared a heavy steel wire. This could not be handled by *Figaro's* crew, and the ETV had to move off to re-rig the tow with a lighter man-made line. The lighter tow line was attached successfully, but parted early on in the tow. Fortunately, *Figaro's* main engine was restarted and the vessel proceeded under its own power.

It was determined that a routine test had been conducted on the CO₂ fire smothering system 2 weeks earlier. This had not been successful and the system had not been properly reset. It was left in an unstable condition, such that movement of only one valve was needed to release 46,000kg of CO₂ to all the protected compartments on board. This valve had been partially activated during the unsuccessful test and was of a type, and in a position, that made it particularly vulnerable to moving under the influence of the ship's motion. It is most likely that the movement of the ship in rough weather caused this valve to open, triggering release of the gas.

The investigation identified that the maintenance instructions for the CO₂ system were contradictory and vulnerable to misinterpretation. The crew of *Figaro* were unfamiliar with the equipment and were unable to recognise the problem that occurred during the routine test, or realise the risk posed by leaving the system in an unstable condition.

The incident also highlighted some areas where ETV procedures could be improved to help maintain the successful reputation that this service has gained.

In view of the actions taken by the managers of *Figaro* and the Maritime and Coastguard Agency (MCA), following the incident, no further recommendations have been made as a result of this investigation.