

ABB Marine Service Concept for LNG Carriers

Since 2000, more than 40 steam turbine driven LNG carriers have been ordered with ABB medium voltage switch gear onboard. On top of that, more than 20 dual fuel diesel electric LNG carriers have been ordered with ABB electric propulsion systems. While many of these vessels are still under construction, ABB Marine Service is already thinking about the next phase in the life of these vessels.

In today's LNG shipping market operator margins are under pressure. Unplanned maintenance costs, as well as off-hire due to equipment failure can quickly send a healthy balance sheet into disarray. Reactive maintenance, fixing things when they've broken down, simply isn't good enough anymore. Preventive maintenance aims to prevent break-downs through equipment health monitoring and corrective action whenever required.

Preventive maintenance is the core of the ABB Marine Service concept. This Marine Service concept is a framework of services, designed to provide the highest availability of the equipment. It allows vessel operators to choose precisely those services that best fit their particular requirements and to accurately predict their maintenance cost for the years to come. In close cooperation with the operator the equipment maintenance tasks are divided between ABB and the crew onboard the vessel. This division of labor also determines the frequency of ABB service personnel visits onboard.

To ensure safe operation and maintenance of the equipment, ABB provides a number of equipment specific crew training courses through the ABB Marine Academy. In their day-to-day maintenance activities onboard the crew is supported by eMST, the electronic Maintenance Support Tool. This computer based interface coaches the crew through each maintenance activity using video footage and pictures of the actual equipment, together with step by step descriptions. It also provides a direct link to the relevant pages in the equipment manual.

The preventive maintenance program can be further enhanced by the addition of remote diagnostics. Remote diagnostics allows the ABB to check the health status and the performance of the equipment online.

The service concept was originally developed by Craig Muirhead of the ABB Marine Service Center in Aberdeen for his UK customers. It proved so successful that it has now been expanded for use in the global service network. The ABB Marine Service Network consists of more than 250 service professionals in 16 marine service centers around the world, providing round-the-clock service to the international LNG shipping community.

Alexander Harsema-Mensonides
alexander.harsema@no.abb.com

