How a new data recorder function can help marine operators discharge their bilge water liability

The ability to collect, access and utilise data is becoming ever more important for marine operators that need to demonstrate that their operations comply with stringent quality and legislative requirements.

Martin Binney, Global Product Line Manager - Recording and Control for ABB Measurement & Analytics, explains how a new GPS feature added to ABB's RVG200 touchscreen data recorder can help shipping operators meet the requirements of bilge water discharge legislation.

The growing realization of the impact that non-indigenous organisms carried in bilge water can have on native marine environments has led to a tightening in legislation around recording the location and quantity of bilge water discharges.

Annex 1 of the MARPOL (Marine Pollution) convention sets strict requirements on effluent discharges from marine vessels, including a maximum limit for the level of oil in bilge water, which cannot exceed 15 parts per million before it is discharged into the sea. The legislation also restricts where bilge water discharges can take place, with a requirement for the location and content of discharges to be logged. Failure to do this can result in prosecution of the vessel and its crew.

To meet this need, ABB has expanded the capabilities of its RVG200 touchscreen paperless data recorder with the addition of a GPS function,

which allows geolocation data to be added to recorded data. Enabling accurate logging of bilge water discharges from ships, this new function helps to ensure that ship operators comply with stringent international regulations governing pollution in marine applications.

The RVG200 can help satisfy this requirement by logging the ship's GPS co-ordinates alongside data on discharge volume and water quality. An optional communications module enables the RVG200 to receive GPS data via the National Marine Electronics Association's (NMEA) communications protocol, which is used throughout the marine sector for networking electronic equipment such as echo sounds, sonars and GPS receivers. When this module is fitted, the RVG200 can be connected to a ship's GPS receiver via serial communications using the NMEA protocol.

Recorded data on bilge quality and quantity is time and date-stamped, with the GPS co-ordinates added as annotations which are then entered into the RVG200's alarm / event log. This data can be imported into ABB's DataManagerPro historical data review software on a PC for permanent storage and subsequent review.

The RVG200's GPS function, together with its other key features including customisable display, encrypted data recording and remote access and monitoring via Ethernet, makes it ideal for meeting MARPOL requirements for bilge discharges. As well as the GPS co-ordinates and quantity of bilge discharges, the RVG200 can also be used to record levels in the bilge well and holding tank and the bilge pump status.

The customisable display function makes it quick and easy for crew members to view data from throughout the whole bilge water management process. Combined with the RVG200's touchscreen interface, the customisable display enables operators to navigate around a visual representation of the bilge system using fingertip control.

Using ABB's DataManager Pro software, recorded data can also easily be retrieved on demand to help demonstrate MARPOL compliance to authorities.

GPS is just one of a range of new functions added to the RVG200 to help users get more from their recorded data, which includes customisable display, remote operation, energy calculation for water and steam applications and configuration report generation.

For more information about the RVG200, visit www. abb.com/recorders. Alternatively, email enquiries, mp.uk@gb.abb.com or call 0870 600 6122 ref. 'RVG200'.

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