Technical eNewsletter

New requirement for the installation of a Bridge Navigational Watch Alarm System (BNWAS) – DNV's interpretations

The intention of this newsletter is to give DNV approved service suppliers, ship owners, yards and BNWAS manufacturers guidelines for the installation of BNWAS on board DNV-classed vessels for which DNV issues a Cargo Ship Safety Equipment Certificate.

The purpose of the BNWAS is to monitor bridge activity and detect operator disability, which could lead to marine accidents. The system monitors the awareness of the officer-on-watch (OOW) and automatically alerts the Master or other qualified OOW if for any reason the OOW becomes incapable of performing watch duties.

Carriage requirement

SOLAS Ch.V Reg.19 as amended by res. MSC.282(86), adopted on 2009-06-05, has introduced a carriage requirement for BNWAS for the following ships (SOLAS Ch.V Reg.19.2.2.3):

.1 cargo ships of 150 grt and upwards and passenger ships irrespective of size constructed on or after 1 July 2011;

.2 passenger ships irrespective of size constructed before 1 July 2011, not later than the first survey after 1 July 2012;

.3 cargo ships of 3000 grt and upwards constructed before 1 July 2011, not later than the first survey after 1 July 2012;

.4 cargo ships of 500 grt and upwards but less than 3000 grt constructed before 1 July 2011, not later than the first survey after 1 July 2013; and

.5 cargo ships of 150 grt and upwards but less than 500 grt constructed before 1 July 2011, not later than the first survey after 1 July 2014.

Performance standards

BNWAS installed before 1 July 2011 should preferably be of an approved type conforming to MSC.128(75) "Performance Standards for a Bridge Navigational Watch Alarm System (BNWAS)". BNWAS installed thereafter are to be of an approved type conforming to MSC.128(75).

BNWAS equipment installed prior to 1 July 2011 for which conformance with MSC.128(75) cannot be documented may be exempted from full compliance with MSC.128(75) at the discretion of the Flag Administration (SOLAS Ch.V Reg.19.2.2.4). DNV will recommend applications for such exemptions when the system is in compliance with the rules for the NAUT-OC/-AW/-OSV class notations and/or when the system is provided with the following functionalities:

1. The system can be manually switched ON and OFF. The ON/OFF selection facilities are to be protected by e.g. a key switch, password protection or by being located in the Master's cabin.

2. The system remains dormant for a period of between 3 and 12 minutes when switched on.

3. A visual indication and an audible alarm are given in the wheelhouse at the end of the dormant period. For the first 15 seconds, a visual indication may be given only.

4. The alarm is transferred to the back-up officer's and/or Master's cabin if not reset in the wheelhouse within 30 seconds.

5. The alarm is sounded in public spaces (e.g. mess room, ship's office, conference room) if not reset within 30 to 90 seconds of the first visual indication in the wheelhouse (the period may be extended to 3 minutes for larger vessels). This alarm may be combined with the alarm described in item 4 above.

6. An alarm reset function is provided in the wheelhouse, e.g. push button(s) and/or movement detector(s), in position(s) allowing a proper lookout.

Electromagnetic compatibility and environmental protection
It should be confirmed that the BNWAS is suitable for installation on board ships through a test report, test certificate or manufacturer's specification, or alternatively through a declaration from the vessel's manager confirming that the system operates trouble-free.

A dedicated form will be prepared to document compliance with the above survey items.

It must be observed that some Flag Administrations will have BNWAS requirements for vessels flying their flag that deviate from the above. The existence of flag-specific requirements must therefore always be checked before applying the above survey guidelines without reservation. Safety Systems (GCSNO861@dnv.com) is at present in dialogue with the major flags and may be consulted if flag-specific information is sought.

For more information, please contact

DNV Classification Support
GCSNO861@dnv.com
Safety Systems