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Date:	**Our reference**:	**Your reference**:	**Job ID:**
2022-11-25	M-SA-CT/STEKR/ 344.1-010898-J-72		344.1-010898-3

Technical compatibility for Float Free Capsules for NW6000 VDR/ S-VDR

Background:
The performance standards for Voyage Data Recorder (VDR)- IMO Res. MSC.333(90) and Simplified Voyage Data Reorder (S-VDR)- IMO Res. MSC.163(78) require the VDR and S-VDR to be equipped with a float-free recording medium.
The float-free recording medium shall comply with the requirements for Float-free Satellite Emergency Position-Indicating Radio Beacons (EPIRB) Operating on 406 MHz. The performance standard for EPIRB- IMO Res. A.810(19) has been replaced by IMO Res. MSC.471(101) for EPIRBs installed after 2022-07-01.
IMO Res. MSC.471(101) includes for the EPIRB to be provided with a GNSS receiver for position fixes and an Automatic Identification System (AIS) locating signal. The duty cycle for the 121.5MHz homing signal has been reduced from continuous to not less than 50%.

EPIRBs installed after 2022-07-01 shall be in compliance with IMO Res. MSC.471(101), and the manufacturer of the float free capsule applied in the NW6000 VDR/S-VDR has announced End-Of-Life (EOL) and a limited Last-Time-Buy (LTB) of float free capsules compliant to IMO Res. A.810(19) ending on 2023-02-01.

VDR and S-VDR installed on board ships are subject to an Annual Performance Test (APT) to verify correct operation. As the EPIRB is battery operated and sealed, practice has been to replace the float free capsule at specified intervals during the APT. Due to the EOL/LTB it will at some stage no longer be possible to replace float free capsules for installations performed prior to 2022-07-01 with capsules that complies with IMO Res. A.810(19).

Considerations:
IMO adopted Res. MSC.471(101) to introduce more recent technology with the aim of further improving the capability of EPIRBs to assist in distress alerting and locating. EPIRBs compliant to the new performance standard may hence be considered to provide enhanced distress alerting and locating capability compared with previous versions.

The interface between the NW6000 Core module and the float free capsule has been confirmed by the manufacturer to remain unchanged between the NW6880 version of the float free compliant with IMO Res. A.810(19) and the NW6880-AIS float free compliant to Res. MSC.471(101). The NW6880-AIS has been tested and confirmed for interoperability with the NW6000 Core module across software versions NWSP v1.5.17 to NWSP v1.8.x.

Conclusion:
For NW6000 VDR/S-VDR installed prior to 2022-07-01 with Float-Free Capsule NW6880, DNV accepts that the float-free may be replaced with Float-Free Capsule NW6880-AIS.

References:

- EC Type Examination certificate MEDB00006Z1 Rev 1 to Rev 3
- Report: Sea of Solutions: NW6000 Test Report, TRON 40VDR AIS 80GB module with NW6000 SP V1.5.17
- Jotron: LTB and EOL on Jotron Tron 40VDR service beacons part.no 88370 and 88380
- Jotron: Tron 40VDR AIS and Tron 40VDR Storage Module

Sincerely

for DNV AS

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