

# **Shaft-Driven Generator Systems**

## **Amended Guidance**

Guidance for the Survey and Construction of Steel Ships Part H

## **Reason for Amendment**

Requirements related to the continuous main power supply of ships in SOLAS II-1/Reg. 41.5 specify that all ships in service equipped with two or more power generating sets whose keels were laid on or after 1 July 1998 are to be capable of quickly restoring power to all essential electrical installations in the case of the loss of any one of the generators in service.

In accordance with the above provisions, the ClassNK Rules require the continuous supply of main power for ships equipped with one shaft-driven generator and diesel generator respectively. Moreover, the ClassNK Rules also require the provision of “additional equipment” for ships which are normally engaged on international voyages to ensure that the main propulsion to be capable to restart from the dead ship condition. In order satisfy the above-mentioned requirement, this “additional equipment” should be capable of starting the main propulsion plant without electric power source from the dead ship condition in order to restart the shaft-driven generator.

Although the continuous supply of main power is also required for ships with restricted service equipped with one diesel generator and one shaft-driven generator respectively, the capability of being able to start the main propulsion plant from the dead ship condition is not. When such a ship is being supplied by a diesel generator and that generator fails, it is not possible to maintain continuous power supply using the standby shaft generator so the ship requires “additional equipment”, e.g., another diesel generator, to satisfy the relevant requirements. On the other hand, when the ship is being supplied by a shaft-driven generator and that generator fails, it is possible to maintain the continuous supply of main power using the standby diesel generator so no additional diesel generator, etc.

Accordingly, relevant requirements were amended to provide clarification to additional generator requirements.

## **Outline of Amendment**

Clarified that ships equipped with a shaft-driven generator as one of their main sources of electrical power are not required to be provided with an additional non-electric power source, e.g., an additional diesel generator, etc., when the ship is being supplied with power by the shaft-driven generator.