

Design of Computer Based Systems

Amended Rules and Guidance

Rules for the Survey and Construction of Steel Ships Part D
Rules for High Speed Craft
Rules for the Survey and Construction of Inland Waterway Ships
Guidance for the Survey and Construction of Steel Ships Parts D
Guidance for High Speed Craft
Guidance for the Survey and Construction of Inland Waterway Ships

Reason for Amendment

Systems which depend upon software for their function (hereinafter referred to as “computer based systems”) need to be provided with means against risks which are peculiar to such systems, e.g., computer viruses and malware. For this reason, IACS adopted IACS Unified Requirement (UR) E22 (Rev.2) in June 2016 so as to ensure software soundness through quality management covering the entire life cycle of such a system. Requirements specified in the IACS UR have already been incorporated to the ClassNK Rules.

Since UR E22 (Rev.2) was incorporated into the ClassNK Rules, however, various ambiguities have been found in requirements related to drawings, tests and ships which have already entered in service; therefore, ClassNK reviewed the wording of these requirements to determine how to express their intent more clearly.

Accordingly, relevant requirements were amended in accordance with results of this review.

Additionally, requirements regarding the protection and redundancy of hardware were amended in order to make them consistent with previous editions of the ClassNK Rules.

Outline of Amendment

- (1) Amended the wording of requirements regarding computer based systems so as to express their intent more clearly.
- (2) Specified requirements regarding the protection and redundancy of hardware.

Amended Requirements

Rules for the Survey and Construction of Steel Ships
Part D: 18.1.1, 18.1.2, 18.2.6, 18.2.7, 18.3.3,
Rules for High Speed Craft
Part 2: 2.1.2
Part 9: 12.1.1, 12.1.3
Rules for the Survey and Construction of Inland Waterway Ships
Part 7: 14.1.1, 14.1.2, 14.2.6, 14.2.7, 14.3.3
Guidance for the Survey and Construction of Steel Ships
Part D: D18.1.1, D18.1.2, D18.2.7, Annex D18.1.1
Guidance for High Speed Craft
Part 2: 2.1.2
Part 9: 12.1.1, 12.1.3

Guidance for the Survey and Construction of Inland Waterway Ships
Part 7: 14.1.1, 14.1.2, 14.2.7