

SUB-COMMITTEE ON HUMAN ELEMENT, TRAINING AND WATCHKEEPING 6th session Agenda item 12 HTW 6/12/4 22 February 2019 Original: ENGLISH

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## **ANY OTHER BUSINESS**

Draft definition of the term "high-voltage" and inclusion of the term "electro-technical officer" in the definition of "operational level" in the STCW Code

# **Submitted by ITF**

#### **SUMMARY**

Executive summary: This document provides proposals for a draft definition of the term

"high-voltage" and the inclusion of the term "electro-technical officer"

in the definition of "operational level" in the STCW Code

Strategic direction, if Not applicable

applicable:

Output: Not applicable

Action to be taken: Paragraph 8

Related document: STCW Code

# **Background**

1 The International Convention on Standards of Training, Certification and Watchkeeping of Seafarers (STCW), 1978, as amended, adopted a new set of amendments at the 2010 Manila Conference. These amendments were necessary to keep the training provisions in line with new technological and operational developments that required new shipboard competencies and, in particular, new requirements for certification of electro-technical officers were included.

## **Discussion**

2 Despite the fact that all the functions in the standards of competence for "electro-technical officer" are provided at the operational level, the definition of the term "operational level" in part A of the STCW Code does not include "electro-technical officer".



- 3 Furthermore, the function "electrical, electronic and control engineering" in the standards regarding engine department of the STCW Code include the term "high-voltage", which has not been properly defined or clarified.
- ITF has received many requests for clarification of existing provisions in the STCW Code containing the term "high-voltage" from education centres and companies, as well as some maritime Administrations. However, no clarification could be provided without an accurate definition of the term in part A of the STCW Code.
- 5 In part A of the STCW Code, the term "high-voltage", as well as the figure "1,000 volts", in the function "electrical, electronic and control engineering" in the standards regarding engine department are used as follows:

## "Table A-III/1

Specification of minimum standard of competence for officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room

Function: Electrical, electronic and control engineering at the operational level

Competence: Operate electrical, electronic and control systems

KUP: Basic configuration and operation principles of the following electrical, electronic and control equipment:

.1.d. high-voltage installations

### Table A-III/2

Specification of minimum standard of competence for chief engineer officers and second engineer officers on ships powered by main propulsion machinery of 3,000 kW propulsion power or more

Function: Electrical, electronic and control engineering at the management level

Competence: Manage operation of electrical and electronic control equipment

KUP: Theoretical knowledge
Design features of **high-voltage** installations

## Table A-III/5

Specification of minimum standard of competence for ratings as able seafarer engine in a manned engine-room or designated to perform duties in a periodically unmanned engine-room

Function: Electrical, electronic and control engineering at the support level

Competence: Safe use of electrical equipment

Criteria for evaluating competence: Understands risks associated with **high-voltage** equipment onboard work

#### Table A-III/6

Specification of minimum standard of competence for electro-technical officers

Function: Electrical, electronic and control engineering at the operational level

Competence: Monitor the operation of electrical, electronic and control systems

*KUP*: Appreciation of the hazards and precautions required for the operation of power systems **above 1,000 volts** 

Competence: Operate and maintain power systems in excess of 1,000 volts

KUP: Theoretical knowledge High-voltage technology

Practical knowledge

Safe operation and maintenance of **high-voltage** systems, including knowledge of the special technical type of **high-voltage** systems and the danger resulting from operational voltage of **more than 1,000 volts** 

#### Table A-III/7

Specification of minimum standard of competence for electro-technical ratings

Function: Electrical, electronic and control engineering at the support level

Competence: Safe use of electrical equipment

Criteria for evaluating competence: Understands the risks associated with high-voltage equipment and onboard work"

In light of the above, ITF considers that the lack of definition of the term "high-voltage" is an oversight and, therefore, the Sub-Committee may wish to rectify this omission to prevent confusion and provide clarity.

# **Proposal**

7 ITF proposes to clarify the operational level of the functions of "electro-technical officer" in section A-I/1 of the STCW Code (Definitions and clarifications) and the inclusion of a new definition of the term "high-voltage" as a new paragraph 1.7 of said section, as follows:

"Section A-I/1
Definitions and clarifications

. . .

- .3 Operational level means the level of responsibility associated with:
  - .3.1 serving as officer in charge of a navigational or engineering watch or as designated duty engineer for periodically unmanned machinery spaces or as electro-technical officer or as radio operator on board a seagoing ship, and

. . .

1.7 *High-voltage* means electricity, where 1,000 volts or above of AC/DC is generated, distributed or transformed."

# **Action requested of the Sub-Committee**

8 The Sub-Committee is invited to consider the information provided and the proposal in paragraph 7, and take action as appropriate.