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STCW.7/Circ.26
6 July 2026

**INTERIM GUIDELINES ON TRAINING FOR SEAFARERS
ON SHIPS USING METHYL/ETHYL ALCOHOL AS FUEL**

1 The Sub-Committee on Human Element, Training and Watchkeeping (HTW), at its eleventh session (10-14 February 2025), agreed that generic interim guidelines on training for seafarers on ships using alternative fuels and new technologies should be developed in parallel with several individual sets of fuel/technology-specific interim guidelines.

2 The Maritime Safety Committee, at its 110th session (18-27 June 2025), having noted the above-mentioned agreement by the HTW Sub-Committee, approved STCW.7/Circ.25 on *Generic interim guidelines on training for seafarers on ships using alternative fuels and new technologies*.

3 Subsequently, the Committee, at its 111th session (13-22 May 2026), approved the *Interim guidelines on training for seafarers on ships using methyl/ethyl alcohol as fuel* (the Interim Guidelines), prepared by the HTW Sub-Committee, at its twelfth session (23 -27 February 2026), as set out in the annex. These Interim Guidelines should serve as the primary reference for the development of training of seafarers on ships using methyl/ethyl alcohol as fuel.

4 The Committee agreed to keep the Interim Guidelines under review, taking into account operational experience gained with their application.

5 Member States are invited to bring the Interim Guidelines to the attention of all parties concerned.

ANNEX

INTERIM GUIDELINES ON TRAINING FOR SEAFARERS ON SHIPS USING METHYL/ETHYL ALCOHOL AS FUEL

1 INTRODUCTION

1.1 The purpose of these Interim Guidelines is to provide a reference for the development and approval of training for seafarers on ships using methyl/ethyl alcohol as fuel to support the reduction of greenhouse gas emissions from international shipping.

Application

1.2 Unless expressly provided otherwise, these Interim Guidelines apply to seafarers on ships using methyl/ethyl alcohol as fuel.

1.3 Where specific provisions of this document differ from the requirements of mandatory instruments applicable to seafarers working on ships using methyl/ethyl alcohol, the provisions of those mandatory instruments should take precedence.

Goal

1.4 The goal of these Interim Guidelines is to provide an international standard for the development and approval of training of seafarers serving on ships using methyl/ethyl alcohol as fuel.

General provisions for training and familiarization

1.5 All seafarers serving on board ships using methyl/ethyl alcohol as fuel should, prior to being assigned shipboard duties, be familiarized with their specific duties and with all ship arrangements, installations, equipment, procedures and ship characteristics that are relevant to their routine or emergency duties, as specified in regulation I/14.5 of the STCW Convention.

1.6 In accordance with MSC.1/Circ.1621 on *Interim guidelines for the safety of ships using methyl/ethyl alcohol as fuel*, paragraph 16.6, masters, officers, ratings and other personnel on ships using methyl/ethyl alcohol as fuel should be trained and qualified in accordance with regulation V/3 of the STCW Convention and section A-V/3 of the STCW Code, taking into account the specific hazards of methyl/ethyl alcohol used as fuel.

1.7 In addition, seafarers should receive appropriate training on the associated risks and emergency procedures, in accordance with their duties and responsibilities.

1.8 On that basis, the following training approach comprising basic and advanced training levels may be applied:

- .1 basic training for seafarers responsible for designated safety duties associated with the care of, use of or in emergency response to the fuel and systems on board ships using methyl/ethyl alcohol as fuel should be delivered in accordance with the knowledge, understanding and proficiency (KUPs) specified in table 1 of these Interim Guidelines and should meet the standard competence specified therein; and

- .2 advanced training for masters, engineer officers and all personnel with immediate responsibility for the care and use of fuel and systems on board ships using methyl/ethyl alcohol as fuel should be delivered in accordance with the KUPs specified in tables 1 and 2 of these Interim Guidelines and should meet the standard of competence specified therein.

1.9 The competences in tables 1 and 2 of these Interim Guidelines have been developed based on the standards of competence for basic and advanced training set out in STCW.7/Circ.25 on the *Generic interim guidelines on training for seafarers using alternative fuels and new technologies*.

2 TRAINING REQUIREMENTS

General

2.1 Prior to being assigned duties on board a ship using methyl/ethyl alcohol as fuel, all seafarers should receive appropriate training in accordance with this section.

2.2 The Administration may, in respect of ships of less than 500 gross tonnage, except for passenger ships, if it considers that a ship's size and the length or character of its voyage are such as to render the application of the full requirements of this section unreasonable or impracticable, exempt the seafarers on such a ship or class of ships from some of the requirements, bearing in mind the safety of people on board, the ship, and property, and the protection of the marine environment.

2.3 Seafarers responsible for designated safety duties associated with the care, use of or emergency response to the fuels and fuel systems on board ships using methyl/ethyl alcohol as fuel should receive basic training or instruction in accordance with paragraphs 3.1 and 3.2 and should meet the standard of competence specified therein.

2.4 Masters, engineer officers and all personnel with immediate responsibility for the care and use of fuels and fuel systems on ships using methyl/ethyl alcohol as fuel should receive advanced training in accordance with paragraphs 3.3 and 3.4 below and should meet the standard of competence specified therein, taking into account the knowledge, understanding and proficiencies to meet the standard of competence specified in paragraph 3.1, as appropriate.

2.5 Basic and advanced training should be given by qualified personnel experienced in the handling and characteristics of the fuels and fuel systems used and the safety procedures involved.

2.6 It is important to emphasize the need to take account of risk analyses. All risk analyses carried out should be made available to participants during training.

3 STANDARDS OF COMPETENCE

Standard of competence for basic training

3.1 Seafarers responsible for designated safety duties associated with the care, use or in emergency response to the use of the fuels and fuel systems on board ships using methyl/ethyl alcohol as fuel should, before being assigned to shipboard duties:

- .1 receive basic training or instruction as determined by the Administration on the use of methyl/ethyl alcohol and related fuel systems so as to:

- .1 contribute to the safe operation of a ship;
 - .2 take precautions to prevent hazards on a ship;
 - .3 apply occupational health and safety precautions and measures;
 - .4 carry out fire-fighting operations on a ship;
 - .5 respond to emergencies; and
 - .6 take precautions to prevent pollution of the environment from ships; and
- .2 be required to provide evidence of having achieved the standard of competence provided to undertake their duties and responsibilities through:
- .1 demonstration of competence in accordance with the methods and criteria for evaluating competence determined by the Administration; and
 - .2 examination or continuous assessment as part of a training programme determined by the Administration.

3.2 Documentary evidence should be issued by the Administration indicating that the holder has completed basic training.

Standard of competence for advanced training

3.3 Masters, engineer officers and all personnel with immediate responsibility for the care and use of fuels and fuel systems on board ships using methyl/ethyl alcohol as fuel should, before being assigned to shipboard duties:

- .1 receive advanced training in addition to the competences outlined in paragraph 3.1.1 above as determined by the Administration on the use of methyl/ethyl alcohol and related fuel systems so as to:
 - .1 be familiar with physical and chemical properties of the fuels and/or characteristics of the systems aboard ships;
 - .2 operate controls of fuels and fuel systems related to propulsion plant and engineering systems and services and safety devices on ships;
 - .3 be able to safely perform and monitor all operations related to fuels and fuel systems used on board ships;
 - .4 plan and monitor safe bunkering, stowage and securing of fuels on board ships;
 - .5 take precautions to prevent pollution of the environment from ships;
 - .6 monitor and control compliance with legislative requirements;
 - .7 take precautions to prevent hazards;
 - .8 apply occupational health and safety precautions and measures on board ships; and

- .9 have knowledge of the prevention, control and firefighting and extinguishing systems on board ships;
 - .2 be required to provide evidence of having achieved the standard of competence provided to undertake their duties and responsibilities through:
 - .1 demonstration of competence in accordance with the methods and criteria for evaluating competence determined by the Administration; and
 - .2 examination or continuous assessment as part of a training programme determined by the Administration.
- 3.4 Documentary evidence should be issued by the Administration indicating that the holder has completed advanced training.

4 EMERGENCY EXERCISES

- 4.1 Emergency exercises related to fuels and fuel systems on board ships using methyl/ethyl alcohol as fuel should be conducted at regular intervals. The response and safety systems for hazard and accident control should be reviewed and tested.

Table 1
*Specification of minimum standard of competence in basic training for seafarers onboard ships using methyl/ethyl alcohol as fuel
(assessed against table A-V/3-1 of the STCW Code for reference)*

Competence	Knowledge, Understanding and Proficiency	
	Methyl/ethyl alcohol	
1 Contribute to the safe operation of a ship	1.1	Basic knowledge of design and operational characteristics of ships using methyl/ethyl alcohol as fuel under atmospheric storage conditions
	1.2	Basic knowledge of fuel systems and fuel storage systems:
	.1	methyl/ethyl alcohol as fuel on board ships
	.2	fuel systems of methyl/ethyl alcohol as fuel on board ships
	.3	atmospheric storage of methyl/ethyl alcohol as fuel on board ships
	.4	general arrangement of fuel storage systems on board ships using methyl/ethyl alcohol as fuel (including Fuel Preparation Room (FPR) and Tank Connection Space)
	.5	non-hazardous areas, hazardous areas, including adjacent spaces with hazardous areas
	.6	typical fire safety plan
	.7	monitoring, control and safety systems aboard ships using methyl/ethyl alcohol as fuel
	1.3	Basic knowledge of fuels and fuel storage systems' operations on board ships using methyl/ethyl alcohol as fuel:
	.1	fuel handling systems and equipment, piping systems and valves including its safe isolation
	.2	fuel tank/storage including atmospheric storage level monitoring

Competence	Knowledge, Understanding and Proficiency	
	Methyl/ethyl alcohol	
	.3 relief systems, protections screens and tank atmosphere control systems .4 basic bunkering operations and bunkering systems. .5 fuel leak monitoring and detection .6 fuel system accidents including spill containment system, emergency release arrangements	1.4 Basic knowledge of the physical and chemical properties of methyl/ethyl alcohol as fuel on board ships, including: .1 properties and characteristics of methyl/ethyl alcohol 1.5 Knowledge and understanding of safety requirements and safety management on board ships using methyl/ethyl alcohol as fuel
2 Take precautions to prevent hazards on a ship	2.1 Basic knowledge of the hazards associated with operations on ships using methyl/ethyl alcohol as fuel, including: .1 health hazards .2 environmental hazards .3 reactivity hazards .4 corrosion hazards (accelerated stress corrosion cracking when in contact with water) .5 ignition, explosion and flammability hazards .6 sources of ignition	

Competence	Knowledge, Understanding and Proficiency
	Methyl/ethyl alcohol
	.7 electrostatic hazards .8 toxicity hazards .9 fuel batch differences .10 leakage 2.2 Basic knowledge of hazard controls: .1 emptying, inerting, gas freeing and monitoring techniques .2 anti-static measures .3 ventilation protocols .4 segregation .5 inhibition .6 measures to prevent ignition, fire and explosion .7 atmospheric control .8 flammable and toxic vapour testing 2.3 Understanding of fuel characteristics on ships using methyl/ethyl alcohol as fuel as found on a Safety Data Sheet (SDS)

Competence	Knowledge, Understanding and Proficiency	
	Methyl/ethyl alcohol	
3 Apply occupational health and safety precautions and measures	3.1	Proper use of gas-measuring instruments and similar equipment
	.1	gas detection (flammable and toxic levels of methyl/ethyl alcohol)
	3.2	Proper use of specialized safety equipment and protective devices, including:
	.1	breathing apparatus
	.2	protective clothing
	.3	resuscitators
	.4	rescue and escape equipment
	3.3	Basic knowledge of safe working practices and procedures in accordance with legislation and industry guidelines and personal shipboard safety relevant to ships using methyl/ethyl alcohol as fuel, including:
	.1	precautions to be taken before entering enclosed spaces, hazardous area zones, including spaces adjacent to hazardous areas
	.2	precautions to be taken before and during repair and maintenance work
	.3	material compatibilities with methyl/ethyl alcohol fuel systems
	.4	safety measures for hot and cold work
	.5	measures for decontaminating personal protective equipment, tools or equipment
	3.4	Basic knowledge of first aid with reference to a Safety Data Sheet (SDS)

Competence	Knowledge, Understanding and Proficiency	
	Methyl/ethyl alcohol	
4 Carry out fire-fighting operations on a ship	4.1	Knowledge of the methods and fire-fighting appliances to detect, control and extinguish fires of methyl/ethyl alcohol fuels including portable heat-detection devices.
5 Respond to emergencies	5.1	Basic knowledge of emergency procedures including emergency shutdown protocols, but not limited to: .1 loss of containment .2 spill during bunkering .3 fire/explosion .4 over-pressurization/ overfilling .5 collision .6 personnel injury
6 Take precautions to prevent pollution of the environment from the release of fuels found on ships	6.1	Basic knowledge of measures to be taken in the event of leakage/spillage of fuels from ships using methyl/ethyl alcohol as fuel, including the need to: .1 report relevant information to the responsible persons .2 awareness of shipboard spill/leakage response procedures .3 awareness of appropriate personal protection when responding to a spill/leakage of methyl/ethyl alcohol .4 the shipboard fuel pollution emergency plan

Table 2

*Specification of minimum standard of competence in advanced training for seafarers on board ships using methyl/ethyl alcohol as fuel
(assessed against table A-V/3-2 of the STCW Code for reference)*

Competence	Knowledge, Understanding and Proficiency	
	Methyl/ethyl alcohols	
1 Familiarity with physical and chemical properties of fuels aboard ships	1.1	Basic knowledge and understanding of simple chemistry and physics and the relevant definitions related to safe bunkering and use of methyl/ethyl alcohol used as fuel: .1 the chemical structure of methyl/ethyl alcohol .2 the properties and characteristics of methyl/ethyl alcohol including: .1 simple physical laws .2 states of matter .3 liquid and vapour densities .4 flashpoint, upper and lower flammable limits, auto-ignition temperature .5 combustion properties: heating values .6 knocking .7 pollutant characteristics of methyl/ethyl alcohol .3 the properties of single liquids .4 the nature and properties of solutions (flammability and corrosivity of water-methyl/ethyl mixtures) .5 thermodynamic units

Competence	Knowledge, Understanding and Proficiency	
	Methyl/ethyl alcohols	
	.6	basic thermodynamic laws and diagrams
	1.2	Understanding the information contained in a Safety Data Sheet (SDS) about methyl/ethyl alcohol
2 Operate controls of fuel related to propulsion plant and engineering systems and services and safety devices on ships	2.1	Operating principles of marine power plants
	2.2	Ships' auxiliary machinery
	2.3	Knowledge of marine engineering terms
3 Ability to safely perform and monitor all operations related to the fuels used on board ships	3.1	Knowledge of design and characteristics of ships using methyl/ethyl alcohol as fuel
	3.2	Knowledge of ship design, systems, and equipment found on ships using methyl/ethyl alcohol as fuel, including:
	.1	fuel systems for different propulsion systems
	.2	general arrangement and construction, including the schematic and piping diagram of the fuel system as well as layout of storage tanks
	.3	fuel storage systems on board ships using methyl/ethyl alcohol as fuel, including materials of construction and insulation
	.4	fuel-handling equipment and instrumentations on board ships:
	.1	fuel pumps and pumping arrangements
	.2	fuel pipelines (double-walled piping) and valves
	.3	expansion devices

Competence	Knowledge, Understanding and Proficiency
	Methyl/ethyl alcohols
	.4 flame screens and arrestors .5 temperature monitoring systems .6 fuel tank level-gauging systems .7 tank pressure monitoring and control systems .5 fuel system atmosphere control systems (inert gas, nitrogen), including storage, generation and distribution .6 toxic and flammable gas-detecting systems .7 alarm and fuel Emergency Shut Down system (ESD)
	3.3 Knowledge of planned maintenance systems .1 the coating or material requirements or compatibility specifically for methyl/ethyl alcohol equipment including tanks .2 the procedures to be taken for invasive maintenance of the methyl/ethyl alcohol system .3 the process for safe isolation of equipment or components and return to service e.g. use of double block and bleed valve system
	3.4 Knowledge of the regulatory framework to ensure the protection of methyl/ethyl alcohol fuel tanks and piping systems
	3.5 Knowledge of fuel system theory and characteristics, including types of fuel system pumps and their safe operation on board ships using methyl/ethyl alcohol as fuel

Competence	Knowledge, Understanding and Proficiency	
	Methyl/ethyl alcohols	
	.1	low pressure pumps
	.2	high pressure pumps
	.3	heat exchangers
	3.6	Knowledge of safe procedures and checklists for taking fuel tanks in and out of service, including:
	.1	inerting
	.2	gas freeing
	.3	initial loading
	.4	tank atmosphere pressure control
	.5	emptying systems
4 Plan and monitor safe bunkering, stowage and securing of the fuel on board ships	4.1	Knowledge of ships using methyl/ethyl alcohol as fuel
	4.2	Ability to use all data available on board related to bunkering, storage and securing of methyl/ethyl alcohol as fuel
	4.3	Ability to establish clear and concise communications between the ship and the terminal, truck or the bunker- supply ship
	4.4	Knowledge of safety and emergency procedures and preparedness for operation of machinery, fuel and control systems for ships using methyl/ethyl alcohol as fuel
	4.5	Proficiency in the operation of bunkering systems on board ships using methyl/ethyl alcohol as fuel including:

Competence	Knowledge, Understanding and Proficiency
	Methyl/ethyl alcohols
	.1 procedures related to pre-bunkering including tank conditioning and post-bunkering .2 knowledge of vapour return/recovery system .3 emergency procedures .4 ship-shore/ship-ship interface and use of ship-shore checklist related to methyl/ethyl alcohol. .5 implementing and monitoring of the non-hazardous areas associated with the bunkering process 4.6 Proficiency to perform fuel-system measurements and calculations, including: .1 maximum fill quantity .2 On Board Quantity (OBQ) .3 Minimum Remain On Board (ROB) .4 fuel consumption calculations 4.7 Ability to ensure the safe management of bunkering and other methyl/ethyl alcohol related operations concurrent with other onboard operations, both in port and at sea
5 Take precautions to prevent pollution of the environment from the release of fuels from ships	5.1 Knowledge of the effects of pollution on human and environment .1 awareness of the dynamics of gas plume and modelling techniques 5.2 Knowledge of measures to be taken in the event of spillage/leakage .1 hazard control checklists in mitigating potential risks

Competence	Knowledge, Understanding and Proficiency	
	Methyl/ethyl alcohols	
	.2	shipboard fuel pollution emergency plan
6 Monitor and control compliance with legislative requirements	6.1	Knowledge and understanding of relevant provisions of the International Convention for the Prevention of Pollution from Ships (MARPOL), as amended and other relevant IMO instruments, industry guidelines and port regulations as commonly applied
	6.2	Proficiency in the use of the IGF Code and related documents
7 Take precautions to prevent hazards	7.1	Knowledge and understanding of the hazards and control measures associated with fuel system operations on board ships using methyl/ethyl alcohol as fuel, including: .1 flammability (including water-methyl/ethyl mixtures) .2 explosion .3 toxicity .4 reactivity .5 corrosivity .6 health hazards .7 inert gas composition .8 electrostatic hazards
	7.2	Proficiency to calibrate and use monitoring and fuel detection systems, instruments and equipment on board ships using methyl/ethyl alcohol as fuel
	7.3	Knowledge and understanding of dangers of non-compliance with relevant rules/regulations

Competence	Knowledge, Understanding and Proficiency	
	Methyl/ethyl alcohols	
	7.4	Knowledge and understanding of risks assessment method analysis on board ships using methyl/ethyl alcohol as fuel
	7.5	Ability to elaborate and develop risks analysis related to risks on board ships using methyl/ethyl alcohol as fuel
	7.6	Ability to elaborate and develop safety plans and safety instructions for ships using methyl/ethyl alcohol as fuel
	7.7	Knowledge of hot work, enclosed spaces, hazardous areas, spaces adjacent to hazardous areas and tank entry including permitting procedures.
8 Apply occupational health and safety precautions and measures on board a ship	8.1	Proper use of specialized safety equipment and protective devices compatible with methyl/ethyl alcohol exposure, including: .1 breathing apparatus and evacuating equipment .2 protective clothing and equipment .3 resuscitators .4 rescue and personal escape equipment
	8.2	Knowledge of function, limitation (if any) of gas-measuring instruments and similar equipment: .1 atmosphere testing and gas detection including toxic levels of methyl/ethyl alcohol
	8.3	Knowledge of safe working practices and procedures in accordance with legislation and industry guidelines and personal shipboard safety relevant to ships using methyl/ethyl alcohol as fuel, including:

Competence	Knowledge, Understanding and Proficiency
	Methyl/ethyl alcohols
	.1 precautions to be taken before and during repair and maintenance work .2 material compatibilities with methyl/ethyl alcohol systems .3 electrical safety .4 ship/shore safety checklist .5 safety measures for hot and cold work 8.4 Basic knowledge of first aid with reference to a Safety Data Sheet (SDS)
9 Knowledge of the prevention, control and fire-fighting and extinguishing systems on board ships	9.1 Fire organization and action to be taken on ships using methyl/ethyl alcohol as fuel 9.2 Special hazards associated with fuel systems and fuel handling on ships using methyl/ethyl alcohol as fuel 9.3 Fire-fighting system operations 9.4 Reporting and notifying relevant authorities and involved parties