



Unit and Assessment Specification

Unit title	Vessel Fire Prevention and Fire Fighting (STCW)
SQA Code	H0JF 04
SCQF Level	5
SCQF Credit Points	6
SSC Ref	MSA 14

History of changes

Publication date: December 2012

Version: 01

Version number	Date	Description	Authorised by

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Title		Vessel Fire Prevention and Fire Fighting (STCW)	
Learning Outcomes		Assessment Criteria	
The learner will:		The learner can:	
1	Understand fire prevention on board ship.	1.1	Describe the possible consequences of fire on board ship.
		1.2	Identify common causes of fire on board ship.
		1.3	Describe procedures to minimise the risk of fire on board ship.
		1.4	Identify the fire protection systems used on board ship.
		1.5	Identify the fire and smoke detection, and automatic alarm systems on board ship.
		1.6	Outline the need for constant vigilance against fire on board ship.
2	Know how to respond in the event of a fire on board ship.	2.1	Outline the value of fire training and drills.
		2.2	Describe the shipboard fire fighting organisation.
		2.3	Describe the functions of fire party.
		2.4	Identify the location of fire-fighting appliances and emergency escape routes on board ship.
		2.5	State the procedures to follow on discovering a fire on board ship.
		2.6	Describe the actions to take when called to muster stations.
3	Understand the principles of fire and extinguishing fire.	3.1	Identify the three elements of fire.
		3.2	Identify types and sources of ignition.
		3.3	Identify types of flammable materials.
		3.4	Describe the different ways in which fire spreads.
		3.5	Describe the dangers of smoke inhalation.
		3.6	Outline the principles of extinguishing fires.
		3.7	Identify the classification of fires.
4	Be able to fight minor fires.	4.1	Identify when to attempt to fight fires personally.
		4.2	Select and use different types of portable fire extinguishers appropriate to fire classification.
		4.3	Identify the consequences of using an inappropriate fire extinguisher.
		4.4	Demonstrate the use of a portable fire extinguisher.

Learning Outcomes		Assessment Criteria	
The learner will:		The learner can:	
5	Know the equipment used to fight extensive fires on board ship.	5.1	Identify large portable and non-portable fire extinguishers, hoses and nozzles.
		5.2	Describe the use of large portable and non-portable extinguishers, hoses and nozzles on various types of fires to best effect.
		5.3	Identify the equipment worn by fire-fighters on board ship.
		5.4	Identify different types of breathing apparatus.
		5.5	Describe the effective use of breathing apparatus to fight fires and effect rescues on board ship.
		5.6	Describe the procedures for the care and maintenance of fire fighting equipment.
6	Be able to fight extensive fires on board ship.	6.1	Select appropriate methods of extinguishing extensive fires of various types, including an oil fire.
		6.2	Demonstrate how to extinguish extensive fires with water, using jet and spray nozzles.
		6.3	Demonstrate how to extinguish fires with foam, powder or any other suitable chemical agent.
		6.4	Demonstrate how to extinguish oil fires using fog applicator and spray nozzles, dry chemical powder or foam applicators.
7	Be able to fight fires in enclosed spaces on board.	7.1	Demonstrate how to enter and pass through, with lifeline but without breathing apparatus, a compartment injected with high expansion foam.
		7.2	Demonstrate how to fight fire in smoke-filled enclosed spaces wearing self-contained breathing apparatus.
		7.3	Demonstrate how to extinguish fire with water fog or any other suitable fire-fighting agent in an accommodation room or simulated engine-room where fire and heavy smoke are present.
8	Be able to rescue individuals during fires on board ship.	8.1	Demonstrate how to effect a rescue in a smoke-filled space wearing breathing apparatus.

Additional information about the Unit
Unit purpose and aim(s)
The aim of this Unit is to assess the knowledge and skills required to prevent fire and fight minor and extensive fires on board ship. It includes knowledge of the causes and consequences of fire on board ship, the measures taken to prevent fires, the actions to take in the event of a fire and how to fight minor fires and extensive fires, including those in confined spaces.
Details of the relationship between the Unit and relevant national occupational standards (if appropriate)
Marine NOS A11 Take personal emergency action on board a vessel
Details of the relationship between the Unit and other standards or curricula (if appropriate)
MNTB Basic safety training, 2nd Edition, December 2004
Assessment requirements specified by a sector or regulatory body (if appropriate)
Assessment will be by a combination of knowledge based testing and practical demonstration and undertaken at an MCA 'approved' centre.

Assessment (evidence) Requirements

The following evidence is required to demonstrate that learners have the appropriate level of knowledge to undertake Vessel Fire Prevention and Fire Fighting (STCW). All Learning Outcomes and Assessment Criteria must be achieved.

Written and/or recorded oral evidence produced either on or off-the-job is required for the following:

- ◆ Learning Outcomes 1,2 and 3
- ◆ Learning Outcome 4 — Assessment Criteria 1, 2 and 3
- ◆ Learning Outcome 5

Performance evidence in the workplace or in an appropriate simulated environment is required for the following:

- ◆ Learning Outcome 4 — Assessment Criterion 4
- ◆ Learning Outcomes 6, 7 and 8

This could be achieved through the observation of learners undertaking practical exercises.

An approved Maritime Skills Alliance (MSA) approved Training Record Book (TRB) should be used to record evidence of achievement.

Guidance on Instruments of Assessment

Performance evidence can be generated using practical exercises in a simulated environment.

Short answer written questions and/or oral interview could be used for the other Outcomes and Assessment Criteria.