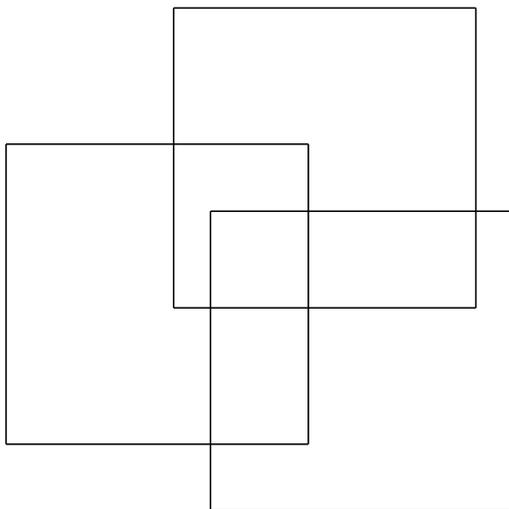




Proposal for

Guidelines on the training of ships' cooks

**For discussion at the Meeting of Experts to
Adopt Guidelines on the Training of Ships' Cooks**
(Geneva, 23–27 September 2013)



MESC/2013

INTERNATIONAL LABOUR ORGANIZATION

Sectoral Activities Department

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INTERNATIONAL LABOUR OFFICE, GENEVA

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Preface

94th (Maritime) Session of the International Labour Conference and relevant Governing Body decisions

When the International Labour Conference (ILC) adopted the Maritime Labour Convention, 2006 (MLC, 2006), at its 94th (Maritime) Session, it also adopted 17 resolutions intended to support the promotion, ratification and effective implementation of the Convention and the improvement of decent work conditions in the maritime sector.¹

In resolution I, concerning the promotion of the Convention, the ILC invited the Governing Body to request the Director-General to give due priority in the allocation of resources to conducting the outstanding tripartite work required for effective implementation of the Convention.

At its 310th Session (March 2011), the Governing Body, having considered proposals for the ILO's Sectoral Activities Programme that had been developed through a participative consultative process with tripartite constituents and ILO units, decided, *inter alia*, that, to promote the MLC, 2006, Guidelines on the training of ships' cooks should be developed.²

At its 316th Session (November 2012), the Governing Body approved a proposal to hold a Meeting of Experts to Adopt Guidelines on the Training of Ships' Cooks. It also agreed: that the Director-General should approach six experts to be nominated by the Employers' group of the Governing Body and six to be nominated by the Workers' group; that the Governments of the following six countries should be invited to nominate experts: Brazil, Cyprus, Ghana, Indonesia, Norway and the Philippines; that, should any of the Governments mentioned above decline to nominate an expert, one of the following Governments could be invited to do so: Canada, Denmark, India, Liberia, Panama and the Russian Federation; and that, given the importance of the subject of the Meeting for the MLC, 2006, the Meeting should be open to all governments as observers, with those that have already ratified the Convention being particularly encouraged to consider sending observers.³

The Office proposal

The Guidelines proposed in this document will serve as a basis for the work of the tripartite Meeting of Experts. Following the Governing Body's decisions, the Office requested the Governments of the 12 countries listed above, and the Employers' and Workers' groups, to nominate experts to participate, through an electronic consultation, in

¹ ILO: *Provisional Record* No. 16, International Labour Conference, 94th (Maritime) Session, Geneva, 2006, p. 16/9.

² ILO: *Sectoral Activities Programme: Proposals for 2012–13*, Governing Body, 310th Session, Geneva, March 2011, GB.310/STM/1; and *Report of the Committee on Sectoral and Technical Meetings and Related Issues*, Governing Body, 310th Session, Geneva, March 2011, GB.310/14(Rev.).

³ ILO: *Sectoral Activities Programme 2012–13*, Governing Body, 316th Session, Geneva, November 2012, GB.316/POL/4(&Corr.).

an informal expert working group. Although participation from Governments was limited, the Worker and Employer experts provided valuable suggestions regarding the content and format of the Office proposal. The Office is grateful to this informal expert working group for its assistance in preparing the proposed Guidelines on the training of ships' cooks, but remains fully responsible for the text, including any errors found therein.

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Acronyms

CCP	critical control point
DMLC	declaration of maritime labour compliance
FAO	Food and Agriculture Organization of the United Nations
FDA	United States Food and Drug Administration
GMPs	good management practices
HACCP	hazard analysis and critical control point
ILO	International Labour Organization
IMO	International Maritime Organization
ISM Code	International Safety Management Code
MARPOL Convention	International Convention for the Prevention of Pollution from Ships
MLC, 2006	Maritime Labour Convention, 2006
STCW Convention	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended
WHO	World Health Organization

1. Introduction

1.1. ILO work in the maritime sector

1. The International Labour Organization (ILO) has always recognized the specificity of maritime employment and the needs of those who make their livelihoods on the world's oceans and seas. The earliest international labour standards concerning work at sea were adopted in 1920. The maritime work of the ILO continues to bring together representatives of governments and shipowners' and seafarers' organizations from the maritime sector to develop international standards and policies to promote decent work for all seafarers and conditions of fair competition for shipowners.
2. The Maritime Labour Convention, 2006 (MLC, 2006), was adopted by the International Labour Conference (ILC) at a special Maritime Session held in February 2006 in Geneva. The basic aims of the MLC, 2006, are to ensure comprehensive worldwide protection of the rights of seafarers and to establish a level playing field for member States and shipowners committed to providing decent working and living conditions for seafarers, thus contributing to the elimination of substandard shipping. As an estimated 90 per cent of world trade is carried on ships, the world's more than 1.2 million seafarers are essential to international trade and the international economic and trade system. The MLC, 2006, recognizes the importance of ensuring that sufficient food and drinking water of appropriate quality is served on board by qualified and trained catering personnel. The Convention strikes a careful balance between firmness with respect to principles and flexibility with regard to implementation.
3. The Guidelines on the training of ships' cooks (hereinafter "the Guidelines") are intended to provide supplementary practical information and guidance to flag States that can be reflected in their national laws and other measures to implement Regulation 3.2 (see Appendix I) and the Code of the MLC, 2006. It must be emphasized that these Guidelines are intended as a practical resource to be used by any government that finds them helpful. In all cases, the relevant national laws or regulations, collective bargaining agreements or other measures to implement the MLC, 2006, in the flag State should be viewed as the authoritative statement of the requirements in that State. The Guidelines may also be useful to labour-supplying States that have specialized training schools for ships' cooks and catering staff.

1.2. Overview of the MLC, 2006

4. The MLC, 2006, is a global legal instrument generally considered to be the "fourth pillar" of the international regulatory regime for quality shipping, complementing the key instruments of the International Maritime Organization (IMO), namely the International Convention for the Safety of Life at Sea, 1974 (the "SOLAS Convention"), as amended, the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (the "STCW Convention"), as amended, and the International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 (the "MARPOL Convention").
5. The MLC, 2006, contains a comprehensive set of standards, based on maritime labour instruments (Conventions and Recommendations), adopted by the ILC between 1920 and 1996. The Convention consolidates and updates more than 68 international maritime labour standards. It sets out seafarers' rights to decent conditions of work on a wide range

of subjects and aims to be globally applicable, easily understandable, readily updatable and uniformly enforced.

6. Ships' cooks are seafarers whose primary responsibility on board a vessel is to prepare food for the crew of the vessel. Their role extends beyond the preparation of food to include maintenance of the kitchen and ensuring the cleanliness and hygiene of food and drink preparation areas and the handling and storage of food and stores. Depending on the size of the ship or circumstances on board, other seafarers may also work in the galley and prepare food.
7. Two of the earlier maritime Conventions revised by the MLC, 2006, are the Food and Catering (Ships' Crews) Convention, 1946 (No. 68), and the Certification of Ships' Cooks Convention, 1946 (No. 69). Convention No. 68 required the provision of food and water supplies which, having regard to the size of the crew and the duration and nature of the voyage, were to be suitable in respect of quantity, nutritive value, quality and variety; and the arrangement and equipment of the catering department in every vessel in such a manner as to permit the service of proper meals to the members of the crew. Convention No. 69 required ships' cooks to hold a certificate of qualification based on successful completion of an examination prescribed by the competent authority including both practical and theoretical tests on food preparation and the handling and storage of food on board ship.
8. The MLC, 2006, recognizes that the training and certification of seafarers falls within the scope of IMO standards, in particular the STCW Convention. However, the training and qualification of ships' cooks is not addressed by any IMO instrument.

1.3. Structure of the MLC, 2006

9. The MLC, 2006, comprises three different but related parts: the Articles, the Regulations and the Code. The Articles and Regulations set out the core rights and principles and the basic obligations of member States ratifying the Convention. The Code contains details for the implementation of the Regulations. It comprises Part A (mandatory Standards) and Part B (non-mandatory Guidelines). The Regulations and the Code are organized into general areas under five "Titles", as set out below.
 - Minimum requirements for seafarers to work on a ship (Title 1).
 - Conditions of employment (Title 2).
 - Accommodation, recreational facilities, food and catering (Title 3).
 - Health protection, medical care, welfare and social security protection (Title 4).
 - Compliance and enforcement (Title 5).
10. When taken as a whole, the MLC, 2006, covers most aspects of the living and working conditions of seafarers. It applies to seafarers as defined in its Article II(1)(f), that is all persons who are employed or engaged or work in any capacity on board a ship to which the Convention applies. This definition thus includes not just the crew involved in navigating or operating the ship but also, for example, hotel personnel working on the ship. Cooks and other catering personnel are therefore protected by the Convention.
11. Specific provisions concerning the training of ships' cooks and catering staff are provided in Title 3, Regulation 3.2 on food and catering, which aims to ensure that seafarers have access to good quality food and drinking water provided under regulated hygienic

conditions. This Regulation provides that seafarers employed as ships' cooks with responsibility for food preparation must be trained and qualified for their position on board ship. The full text of the Regulation, together with Standard A3.2 and Guideline B3.2, is set out in Appendix I.

12. While other provisions of the MLC, 2006, apply to cooks and catering personnel, the present Guidelines focus on Regulation 3.2, Standard A3.2 and Guideline B3.2.

1.4. Enforcement provisions

13. Enforcement and compliance requirements are set out in the Articles and in Title 5 of the Convention. The flag State must verify, through an effective and coordinated system of regular inspection, monitoring and other control measures, that ships comply with requirements through national laws or regulations, through collective bargaining agreements or through other measures implementing the MLC, 2006. Ships of 500 gross tonnage (gt) or over engaged in international voyages must also be certified for compliance with the requirements of the Convention and are required to carry a maritime labour certificate and a declaration of maritime labour compliance (DMLC).
14. The DMLC has two parts. Part I is to be completed by the flag State and must contain references to the relevant details of the national requirements implementing the MLC, 2006. Part II is prepared by the shipowner and outlines the measures that the shipowner has put in place to ensure ongoing compliance on the ship with these flag State requirements. Standard A5.1.3(10)(b) requires shipowners to document in Part II of the DMLC ongoing compliance with the national requirements between inspections and the measures proposed to ensure that there is continuous improvement.
15. The requirements of Regulation 3.2 and Standard A3.2 concerning food and catering – one of the 14 areas of working and living conditions on a ship that are subject to mandatory certification – must be met upon inspection in order for a maritime labour certificate to be issued. This includes ensuring that seafarers responsible for food preparation are trained and qualified for their position. Food and catering is also one of the aspects of seafarers' working and living conditions that may be subject to port State control.¹

1.5. Aim of the Guidelines

16. The relevant national laws or regulations, collective bargaining agreements or other measures implementing the MLC, 2006, are the authoritative statement of requirements on the training and qualification of ships' cooks. The MLC, 2006, sets out the requirements that are to be implemented nationally. These Guidelines refer only to the requirements set out in the MLC, 2006, and are to be considered as general guidance only. Thus, although more detailed guidance is provided in sections 3 and 4 below, these Guidelines will not necessarily be wholly applicable in all countries.
17. These Guidelines reflect the requirements set out in the Articles, Regulations and Part A of the Code, including the requirement that the ILO member States shall give due consideration to implementing their responsibilities in the manner provided for in the non-mandatory part of the Code (Part B). This means that there may be differences of

¹ See ILO: *Guidelines for port State control officers carrying out inspections under the Maritime Labour Convention, 2006*, Geneva, 2009.

detail between provisions of the MLC, 2006, and national provisions that have been adopted to implement Regulation 3.2.

18. The Guidelines are a tool to assist the competent authority in the implementation of the MLC, 2006. Article II(1)(a) of the Convention defines the competent authority as the minister, government department or other authority having power to issue and enforce regulations, orders or other instructions having the force of law in respect of the subject matter of the provision concerned.
19. Under Standard A3.2, the competent authority has several specific responsibilities related to the content of training courses for ships' catering staff and other measures to provide minimum standards for the quantity and quality of food and drinking water. The competent authority should define whether ships operating with a prescribed manning of less than ten need fully qualified ships' cooks. It should also consider developing procedures for granting a dispensation permitting non-fully qualified cooks to prepare food in circumstances of exceptional necessity.

1.6. Structure of the Guidelines

20. The Guidelines are organized to provide guidance, with increasing detail, on the qualifications and training of ships' cooks. Section 2 covers the minimum requirements set out in Regulation 3.2. Section 3 explains the responsibilities of the different actors involved with food provision and preparation. Section 4 sets out the competencies of trained and qualified ships' cooks and other catering staff and provides additional guidance on the method of demonstrating competencies. Appendix I sets out the text of Regulation 3.2, Standard A3.2 and Guideline B3.2 and Appendix II provides information on the steps taken by national maritime authorities towards the implementation of these provisions.

2. Minimum requirements of Regulation 3.2 and the Code

21. Access to adequate food and drinking water of appropriate quality and provided free of charge on board ship is vital to the health and well-being of seafarers. The minimum standards for food catering on board ship, as set out in Regulation 3.2(1) and (2) and Standard A3.2(1) and (2), relate to the quantity, nutritional value, quality and variety of food, based on the duration and nature of the voyage and the number of seafarers on board. The seafarers' religious requirements and cultural practices with regard to food must also be duly taken into account. For flag State inspection requirements, reference should be made to the *Guidelines for flag State Inspections under the Maritime Labour Convention, 2006*.¹
22. In accordance with Standard A3.2(8), no seafarer under the age of 18 shall be employed or engaged to work as a ship's cook.
23. Standard A3.2 indicates that at least four different categories of seafarers may work in a ship's galley, namely: fully trained and qualified cooks; non-fully qualified cooks who are trained or instructed on board ships with a prescribed manning of less than ten; catering staff; and other seafarers who may carry out the preparation of food under exceptional temporary circumstances. Importantly, the Convention requires with respect to all four categories that a seafarer preparing food must have completed a minimum of training which includes food and personal hygiene as well as the handling and storage of food on board ship. These will be referred to as the minimum core competencies. The specific elements of training and qualifications for catering staff will be presented in greater detail below.

2.1. Responsibilities of the competent authority

24. Under Standard A3.2(4), the competent authority must approve or recognize training courses for ships' cooks. This means evaluating training institutions to ensure that the level of instruction in the core competencies required by ships' cooks is adequate to give the seafarers the skills they need to safely prepare nutritious and appropriate food during the voyage.
25. The competent authority should consider prescribing a minimum period of service at sea as a requisite for working as a ship's cook. It has the discretion to vary the minimum period to take into account qualifications or experience. This implies that the period of service at sea may be completed while working in a different capacity on board ship, and outside the galley.²
26. The competent authority must provide documentation to trained and qualified ships' cooks directly or delegate that authority to approved training institutions. In the latter case, the competent authority should ensure that training institutions use a method of evaluating student cooks that confirms that the students have the necessary skills to prepare food safely on board ships. The competent authority should also: determine the method of

¹ ILO: *Guidelines for flag State inspections under the Maritime Labour Convention, 2006*, Geneva, 2009.

² Guideline B3.2.2(1)(a).

evaluating and documenting qualified cooks who are currently working on ships but do not hold documentation of qualification from an approved training school;³ determine whether to recognize certificates or other documents granted by the competent authorities of other States, and the procedures for granting such recognition; and specify what documentation must be carried on board for the purposes of inspection.⁴

- 27.** In accordance with Standard A3.2(5), the competent authority may decide that ships with a prescribed manning of less than ten are not required to carry a fully qualified cook. In such cases, the competent authority must still ensure that the seafarer assigned to the processing of food in the galley is trained or instructed in food, personal hygiene and food handling and storage on board ship as a minimum. Therefore, non-fully qualified cooks must also carry some type of documentation to prove that they have completed training in these core competencies.
- 28.** Pursuant to Standard A3.2(6), the competent authority may decide that, in circumstances of exceptional necessity, a non-fully qualified cook could be granted permission to prepare food on a specified ship for a specified period not exceeding one month. The seafarer serving in this temporary role must also have been trained in the minimum core competencies. It would be helpful if the competent authorities could define the procedures for requesting such a dispensation and indicate the types of circumstances that may qualify as being of “exceptional necessity”.
- 29.** In accordance with Standard A3.2(7), the competent authority must require that frequent documented inspections be carried out on board ships by, or under the authority of, the master with respect to: supplies of food and drinking water; all spaces and equipment used for the storage and handling of food and drinking water; and galley and other equipment used for the preparation and service of meals.
- 30.** The competent authority may also consider publishing information on nutrition and on methods of purchasing, storing, preserving, cooking and serving food on board a ship.⁵

2.2. Suggestions of good practices

- 31.** The following sections set out suggestions of good practices that could enhance the implementation of Regulation 3.2.⁶

2.2.1. Stores of food and drink

- (a) The quantity of food supplies must be appropriate, having regard to the size of the crew and the duration and nature of the voyage.

³ For example, the Maritime and Port Authority of Singapore requires existing ships’ cooks to undergo bridging training on food, personal hygiene and food storage and handling on board a ship; see Maritime and Port Authority of Singapore, *Shipping Circular to Shipowners No. 3 of 2013*, 25 January 2013, para. 8.

⁴ Guideline B3.2.2(3).

⁵ Guideline B3.2.1(1).

⁶ In the preparation of this document, experts disagreed on the usefulness of including these suggestions in the Guidelines.

-
- (b) Food supplies must also be suitable, having regard to the religious and cultural specificities of a diverse crew.
 - (c) The quality of food should be ensured through the use of trusted suppliers, the appropriate storage and handling of the raw ingredients in the preparation of food, the use of menu plans and the analysis of regular feedback from the crew.
 - (d) Stores of food should be systematized and regularly reviewed, to make it possible to keep track of the quantity and quality of the food.
 - (e) To avoid under-provisioning, stores should be sufficient to provide for a minimum number of standard, varied meals.
 - (f) Food wastage should be minimized.
 - (g) If the usual storage rooms are insufficient for keeping supplies for a long voyage, food should be kept in rooms away from diesel fumes and heat (for example, in rooms that are not close to the engine).
 - (h) A quick response plan should be in place for dealing with any outbreaks of pests.
 - (i) Waste should be managed on board ship in accordance with the provisions of Annex V of the MARPOL Convention.
 - (j) Galley waste should be handled and stored separately from food stores, raw materials and drinking water and should be kept in bins with closed lids to prevent contamination and pests.

2.2.2. Organization and equipment

- (a) Meat slicers, mixing equipment and other similar equipment should be fitted with safety devices to prevent injuries.
- (b) Galley equipment such as cookers and ovens should be fitted with pan and door holders for cooking in heavy weather.
- (c) Fiddles and pan holders should be available for keeping pots and pans on shelves and worktops.
- (d) Chilling, refrigeration and freezing equipment should be available in stores and in the galley and appropriate for the potential crew size and the length of the voyage.
- (e) Equipment should be available for ventilating the galley, with cooker hoods for removing fumes from the cooker or oven.
- (f) Food safety management systems should be well defined and based on hazard analysis and critical control point (HACCP) principles, written documentation and good management practices (GMPs), or on procedures not requiring documentation, such as those relating to personal hygiene.
- (g) Potable water should be provided in the galley for drinking and food preparation.
- (h) It is important for drinking water equipment to be properly maintained to prevent the growth of bacteria in the system.

2.2.3. Drinking water

- (a) The ship should be fitted with a system to provide fresh water (for example, a bunkering system) or have facilities to produce water on board. The water supply must be of good quality.
- (b) Water safety plans should be established to ensure the safety of a drinking water supply.
- (c) Galley personnel should be familiar with the ship's procedures for resolving problems with the fresh water supply as soon as possible. For example, it should be clear who specifically to contact if a problem is detected.

3. Division of responsibilities and obligations

32. The aim of this section is to differentiate between the responsibilities and obligations of the shipowner, the master and the catering staff in relation to Regulation 3.2 and the provision and preparation of food for the crew on board ship.

3.1. The shipowner

33. The shipowner is defined in Article II(1)(j) of the MLC, 2006. Under Standard A5.1.3(10)(b), Part II of the DMLC is to be completed by the shipowner and shall identify the measures adopted to ensure ongoing compliance with the national requirements and the measures proposed to ensure that there is continuous improvement. Part II of the DMLC should also provide information on the frequency of inspections, the documentation collected and the procedures to be followed where non-compliance is noted.¹

3.1.1. Food must be provided free of charge for seafarers during their employment

34. Regulation 3.2 requires shipowners to provide seafarers with food free of charge during their period of employment.

3.1.2. Ships must carry sufficient quantities of good quality food

35. Supplies of food and drinking water must be suitable in respect of quantity, nutritional value, quality and variety for the duration and nature of the voyage, having regard to the number of seafarers on board, their religious requirements and their cultural practices.² Shipowners should establish minimum standards and procedures for ensuring the quantity and quality of food on board. Many different purchasing and catering systems are used in international shipping. The shipowner should ensure that a system is in place that provides supplies of sufficient quantity and quality to be loaded on board. The ship should have sufficient facilities for frozen and cold stores and dry stores. Appropriate facilities are essential to preserve the quality of the supplies.

36. The shipowner should ensure that there is a systematized and regular review of the quantity and quality of stores to ensure that a proper evaluation and corrective action can be taken in due time, so that it is possible at any time to provide the crew with adequate, varied and nutritious meals that take due account of religious requirements and cultural practices. The shipowner should ensure that the members of the crew know their roles and responsibilities in this regard by way of procedures, training or instruction.

¹ Guideline B5.1.3(2).

² Standard A3.2(2)(a).

3.1.3. Ships must provide sufficient good quality drinking water

37. The MLC, 2006, requires shipowners to ensure that the quantity and quality of drinking water supplies are suitable considering the number of crew on board and the duration and nature of the voyage.
38. Shipowners should provide a drinking water system that ensures clean drinking water supplies. The quality of the water may be tested to conform to national regulations or to European Union (EU) or World Health Organization (WHO) standards.³
39. The shipowner should establish procedures and minimum standards for the quantity and quality of drinking water on each ship, depending on the nature of the voyage, crew size, and so on. Drinking water systems on board are normally handled by engineers. Shipowners should ensure that the engineers are qualified to operate the drinking water system and to regularly check water quality. There should also be a plan for maintaining the water system, including the documentation of water quality, and an emergency response plan for cases where testing the water indicates that there may be a problem with its quality. Procedures should also outline the various roles and responsibilities of crew members in relation to drinking water.

3.1.4. The master, ships' cooks and other catering personnel must be properly skilled for their positions

40. The shipowner must ensure that the master is properly qualified under the MLC, 2006, and as described in the STCW Convention, the International Safety Management Code (ISM Code) (IMO, 2010) and national flag State laws. The shipowner should also define the master's specific responsibilities regarding food, catering and hygiene.
41. The shipowner should also ensure that there are procedures in place covering the training and instruction of new crew members working in the galley and that the master has received sufficient instruction in respect of his or her roles and responsibilities regarding, for example, purchasing, menu planning, stores, drinking water, inspections, safety and maintenance in stores and the galley, good cooperation in general and providing support for the work of the catering personnel for each voyage.
42. The shipowner must ensure that all catering personnel are properly skilled for their positions. If a fully qualified cook is employed, he or she must hold the appropriate documentation. For ships with a crew of fewer than ten, the shipowner should ensure that the cook is sufficiently trained and instructed. The shipowner should establish procedures to ensure the training and instruction of catering personnel, including with regard to ensuring ongoing compliance with the national requirements between inspections, and to ensure that there is documented continuous improvement.⁴
43. The shipowner should also ensure that the catering personnel can communicate in the selected working language on board or a working language understood by the crew.

³ Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption; WHO: *Guidelines for drinking-water quality*, fourth edition (WHO, 2011); WHO: *Guide to ship sanitation*, third edition, 2011.

⁴ Standard A5.1.3(10)(b).

3.1.5. Catering staff must be trained in food and personal hygiene

44. The shipowner should ensure that there are adequate health and safety procedures in place for the specific ship type, and that training includes the handling of food and personal hygiene on board to ensure that food is prepared and served in hygienic conditions.
45. Passenger ships are advised to take a more comprehensive and systematic approach, for example by applying HACCP principles. Cargo ships without passengers may use a self-assessment system based, for example, on HACCP principles and GMPs. For more details, see section 4 of these Guidelines.

3.1.6. The organization and equipment of the galley and storage rooms must be appropriate

46. The shipowner should ensure that equipment of the galley and storage rooms is appropriate to allow for the adequate storage of sufficient stores for the duration of the voyage, a safe working environment and adequate, varied and nutritious meals to be prepared and served in hygienic conditions, in line with the general principles on sufficient procedures regarding the safety and maintenance of equipment and safety of work as required under the MLC, 2006, and the ISM Code.
47. The galley and storage rooms should be designed to ensure good order and hygienic conditions and to ensure that it is easy to access products and keep rooms clean. It should be easy to get around corners and there should be enough space to set food safely aside in the galley. This means there should be enough room for worktops, machinery, equipment and materials to be used without the risk of crew members getting injured. In the galley, it is especially important to ensure that there is enough workspace to keep raw ingredients separate and to keep food off the floor.
48. The shipowner should also ensure that procedures on waste management cover galley waste.

3.1.7. Dispensation in exceptional circumstances

49. In exceptional circumstances, when the cook is unable to perform his or her normal duties, the shipowner should send a request to the national competent authority to obtain a dispensation to permit a non-fully qualified cook to serve for a specified limited period until the next convenient port of call or for a period not exceeding one month, in line with Standard A3.2.
50. The shipowner is responsible for ensuring that the person for whom the dispensation is issued is trained or instructed in such areas as food and personal hygiene as well as in the handling and storage of food on board ship.
51. The shipowner should identify the need for procedures on the specific training and instruction that should be provided in such cases as part of contingency planning and under Standard A5.1.3(10), and ensure that such procedures are ready to be applied.

3.1.8. National laws and regulations or other measures must be applied

52. The shipowner must ensure that the ship complies with the relevant national laws, regulations, collective bargaining agreements or other measures implementing the MLC, 2006.

3.2. The master

53. The master is responsible for following the procedures set up by the shipowner and for taking appropriate action and informing the shipowner according to procedures if non-conformities are observed.

54. The master should confirm that all catering personnel carry documentation to show that they are qualified, trained and instructed for their positions.

55. The master will often have other duties relating, for example, to administration, finances and the planning and documentation of work in the galley and is often deeply involved in purchasing for and provisioning the ship. Where there is a fully qualified cook, the role of the master will usually be more limited, but this will also depend on the shipowner's traditions and procedures.

56. Standard A3.2 requires the master, or a person designated by the master, to ensure that frequent documented inspections are carried out, on board ship, in order to verify that there are sufficient supplies of good quality food and drinking water on board and that the galley equipment and storage facilities are in good condition, as discussed in parts 3.2.1 and 3.2.2 below.

3.2.1. There must be sufficient supplies of good quality food and drinking water on board

57. Catering and purchasing procedures generally vary from ship to ship. The master's role and responsibilities depend on how much authority is delegated to the ship's cook in the shipowner's policies and collective bargaining agreements. The master is responsible for establishing good working relations with the cook and for making arrangements that support the cook's ability to serve adequate, varied and nutritious meals.

58. It is recommended that the master's inspections should reveal and document whether the supplies of food and drinking water are sufficient. The inspections should be carried out regularly, preferably on a weekly basis, and include information from the cook on the status of provisions, including the quality and the variety of stores. The master should establish a system that monitors over- and under-provisioning for reporting to the shipowner.

3.2.2. Galley equipment and storage facilities must be in good condition

59. Standard A3.2 requires that the master frequently inspect the equipment used for the storage and handling of food and drinking water. The master should establish procedures for systematic inspections and should ensure that deficiencies are handled appropriately. The inspection should include direct visual observation and a walk through the galley and storage areas. The inspection should also confirm whether equipment is safe to use and can be cleaned thoroughly and that relevant parts of an established self-assessment programme

are followed as intended. The master should maintain consistent communication with catering personnel to ensure that information is shared regularly.

3.3. Responsibilities of different categories of catering staff

60. Regulation 3.2 and Standard A3.2 of the MLC, 2006, include references to four different categories of seafarers who may be involved with food preparation, namely: fully qualified cooks; trained and instructed cooks for ships with fewer than ten crew members; other catering staff; and non-fully qualified cooks in circumstances of exceptional necessity. They do not explicitly differentiate between the training and qualifications of catering staff and those of non-fully qualified cooks in circumstances of exceptional necessity. The additional competencies required for fully qualified cooks reflect their higher level of responsibility. Table 3.1 provides details of the responsibilities required of the different categories of catering staff.

Table 3.1. Responsibilities of different categories of catering staff

Fully qualified cooks	Trained and instructed cooks on ships with fewer than ten crew members	Catering staff; and non-fully qualified cooks in cases of exceptional necessity
Food and personal hygiene	Food and personal hygiene	Food and personal hygiene
Handling and storage of food on board ship	Handling and storage of food on board ship	Handling and storage of food on board ship
Define and implement stock management procedures	Implement stock management procedures	
Nutritionally balanced menu planning	Nutritionally balanced menu planning	Basic cookery skills
Comprehensive cookery skills	Practical cookery skills	Read and follow recipes and galley procedures
Calculation	Calculation	Basic maths skills
Written and oral communication	Written and oral communication	
Computer skills	Computer skills	
Galley safety and first aid	Galley safety and first aid	Galley safety and first aid
Risk assessment and implementation of preventative safety measures	Risk assessment and implementation of preventative safety measures	Basic risk assessment
Supervise safety procedures including incident reporting and corrective actions	Incident reporting	Incident reporting
Adaptation to changing circumstances	Adaptation to changing circumstances	
Define and implement policies and procedures appropriate for the ship	Implement procedures appropriate for the ship	
Management and supervision of other seafarers in the galley		
Procurement of provisions		

4. Competencies for catering personnel

4.1. Overview

- 61.** This section reviews all the skills that the various categories of catering personnel should acquire during their education or training. The recommended qualifications and training requirements for fully qualified cooks and trained and instructed cooks for ships with fewer than ten crew members reflect the fact that these categories of cooks may manage all galley operations, including both the procurement of supplies and practical food production. Other catering staff and non-fully qualified cooks in circumstances of exceptional necessity are grouped together, as their duties are generally the same. The information is presented in tables that are similar in layout to those used in the STCW Convention. Each table is followed by some clarifying text, which is written with the fully qualified cook in mind unless otherwise indicated.
- 62.** Catering personnel should have the skills to be able to serve proper quantities of quality, nutritious food that fulfils cultural, religious and hygiene requirements. Knowing how to ensure hygiene in and around the galley is a crucial skill for trained personnel and Regulation 3.2 expressly states that food on board must be served under hygienic conditions. Knowing how to store and handle food hygienically plays a crucial role in preventing people from falling ill from the food served on board.

Box 4.1

Note on hygiene systems

There is an internationally recognized system for handling food hygiene, called the HACCP system. It may be used to systematically monitor and control critical control points (CCPs), which are measurable factors or processes in food production. It is a system for documenting and following up on faults and rectifying actions. The HACCP system may be used in general shipping but is especially applicable for passenger vessels. Cargo ships without passengers would benefit from being familiar with the principles underlying the HACCP system when drawing up and organizing a self-assessment system. Section 4 of the Guidelines describes a less extensive self-assessment system. In some places, however, there are references to HACCP principles and to GMPs.

- 63.** The paragraphs on practical cookery emphasize that personnel should have a wide understanding of the processes used in and around the galley, taking into account that it should be possible to keep food on board for some time, and highlight that it is essential for the cook to have access to a varied selection of good quality raw ingredients.
- 64.** The food products with shortest shelf life should be used first on the voyage. Food products should be used in an economical, sensible and varied way. The meals that are served should also meet the different requirements and needs of the crew for a nutritious, varied and good quality diet. The food served daily should also take account of individual needs, for example the needs of diabetics and crew members with food intolerance or allergies. The cook should also understand the significance of the cultural, religious and social aspects of mealtimes on board. Regulation 3.2 specifically mentions the need to take into account the differing cultural and religious backgrounds of the crew.
- 65.** The division of catering personnel into the four categories also indicates the different levels of education and different competencies required and the differing expectations of the shipowner and master with respect to food being made from scratch using raw ingredients, or whether ready meals or semi-processed products could be used. Food made from scratch is healthier than ready meals. Ready meals are generally more expensive and typically contain more fat and preservatives than food made from scratch.

66. This section also addresses other competencies that catering personnel are expected to have, including workplace safety and communication and other basic skills, for example mathematical skills to change the number of servings prepared in a set recipe to reflect the number of crew members likely to eat a particular dish at a particular meal.

4.2. Practical cookery – Basic cooking skills

Table 4.1. Nutrition, planning, practical cooking, financial issues and management

Professional level	Learning outcome	Knowledge of:	Methods for demonstrating competence
Fully qualified cook (responsible person)	Understanding of: <ul style="list-style-type: none"> ■ menu planning and cooking skills ■ health and nutrition in practical cooking ■ senses (the importance of how people experience food) ■ raw ingredients and their use ■ the various cuts and preparation techniques used in practice, including baking ■ presentation and serving ■ purchasing (ordering provisions, quantities and storage) ■ dietary economics (financial aspects, raw ingredient wastage and reuse) ■ administration, management and supervision 	Knowledge of: <ul style="list-style-type: none"> ■ the importance of nutrition in practical cooking ■ food product groups and use ■ stocktaking and purchasing ■ budget planning, operating a galley and financial issues Can: <ul style="list-style-type: none"> ■ plan varied menus, taking into account nutritional value and religious and cultural aspects ■ assess quality of, prepare and cook selected raw ingredients ■ prepare a nutritional, varied menu from scratch and use various cooking techniques and preparation methods ■ use senses in practical cookery: appearance, colour, smell, consistency ■ supervise, organize and delegate tasks ■ adapt menu plans when there are unforeseen changes in circumstances 	Written: <ul style="list-style-type: none"> ■ Multiple choice test ■ Case-based test Method – example: Project-oriented exam covering all competencies, from ordering provisions to practical cookery and serving, from an overall point of view Sanctioned by approved assessor The examination may be done in an officially approved training institution
Trained and instructed cook Ships with fewer than ten crew members (responsible person)	Understanding of: <ul style="list-style-type: none"> ■ menu planning and cooking skills ■ health and nutrition in practical cooking ■ senses – the importance of how people experience food ■ raw ingredients and their use ■ the various cuts and preparation techniques used in practice, including baking ■ presentation and serving ■ stock management and ordering 	Knowledge of: <ul style="list-style-type: none"> ■ MLC, 2006, Regulation 3.2 ■ ISM Code/safety management systems ■ WHO document “HACCP – Introducing the hazard analysis and critical control point system” (WHO/FSF/FOS/97.2) Can: <ul style="list-style-type: none"> ■ plan varied menus, taking into account nutritional value and religious and cultural aspects ■ assess quality of, prepare and cook selected raw ingredients 	<ul style="list-style-type: none"> ■ Multiple choice and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction Expected standards of work and behaviour are observed by an assessor Sanctioned by approved assessor

Professional level	Learning outcome	Methods for demonstrating competence
	<ul style="list-style-type: none"> ■ dietary economics in cooperation with the master ■ administration, management and supervision 	<ul style="list-style-type: none"> ■ prepare a nutritional, varied menu from scratch and use various cooking techniques and preparation methods ■ use senses in practical cookery: appearance, colour, smell, consistency ■ supervise, organize and delegate tasks ■ adapt menu plans when there are unforeseen changes in circumstances
Catering staff and non-fully qualified cook (in circumstances of exceptional necessity)	<ul style="list-style-type: none"> ■ following menu plans to ensure variation and nutrition ■ basic cooking skills ■ following recipes ■ dealing with raw ingredients ■ the various cuts of meat and preparation techniques used in practice, including baking ■ presentation and serving ■ stock management in cooperation with the cook/master 	<p>Can:</p> <ul style="list-style-type: none"> ■ assist the cook in meal preparation ■ prepare a nutritious meal in circumstances of exceptional necessity <p>Familiar with:</p> <ul style="list-style-type: none"> ■ preparation of a limited range of raw ingredients and processed/semi-processed products <p>Can:</p> <ul style="list-style-type: none"> ■ assist the cook in the practical part of meal preparation ■ read, understand and follow a recipe
		<ul style="list-style-type: none"> ■ Multiple choice or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction <p>Sanctioned by approved assessor</p>

4.2.1. Menus

67. The cook should:

- be able to read, understand and follow a recipe, have knowledge regarding nutrition, raw ingredients, preparation techniques and cultural and religious requirements, and be able to apply these skills in menu planning;
- be able to estimate the amount of leftovers and include their use in menus, reducing food wastage both in the longer term and in day-to-day planning;
- take into account the role of all the senses, the need for variation and the importance of nutritional value when planning;
- be able to prepare a meal so that the ingredients retain their nutritional content while still maintaining a tempting appearance;
- be able to prepare meals taking account of preparation time and methods that are crucial to final taste;
- be aware of the social aspect of mealtimes and of the practical consequences of this on menu planning, including with regard to special traditions, celebrations and occasions;

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- have an understanding of the interaction between mealtimes and the daily rhythms of work on board and the importance of such interaction in terms of the practicalities of serving meals and snacks.
68. In order to be able to design and serve a varied menu, the cook should have knowledge of and ability to use recipes, various cooking methods and information on how nutrients change during cooking, taking into account nutritional and taste implications.
69. A cook must also be able to prepare:
- a cold table;
 - hot and cold dishes;
 - egg dishes;
 - lunch dishes;
 - soup, especially basic stock soups;
 - sauces, especially basic sauces;
 - fish, meat, poultry and game (feathered/furred);
 - garnishes and accompaniments;
 - vegetables;
 - desserts;
 - international cuisine, taking into account cultural and religious requirements and common traditions.

4.2.2. Health and nutrition in practical cooking

70. The cook should have knowledge of:
- the nutritional value of food and the importance of meals and their composition for maintaining a healthy life;
 - the fundamental principles of nutrition and the skills to be able to ensure a proper nutritious diet throughout the voyage;
 - how, over several days, a menu should meet people's needs for nutrients, vitamins and minerals;
 - international recommendations or the flag State's own nutritional recommendations, giving due consideration to cultural practices and religious requirements.

4.2.3. Knowledge, use and preparation of raw ingredients

71. The cook should have knowledge of basic food chemistry and of how the storage and preparation of raw ingredients influences the quality and nutritional value of the ingredients.

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72. The cook should also have knowledge of how to assess the quality of raw ingredients and processed or semi-processed foods, and be able to select and use seasonal and local foods when purchasing provisions.

4.2.4. Practical cooking skills for nutritionally balanced menus

73. In order to undertake practical aspects of cooking, the cook should have acquired the necessary theoretical competencies needed for planning, preparing and serving a varied, nutritious menu in a practical way. The cook should:
- be able to organize good work processes and efficient product flows and have the ability, in practice, to establish safe food handling practices during preparation. It is important that the cook has a good overview of stores and has established schedules for the timely thawing of relevant food;
 - be able to combine the principles of variation, reusing leftovers and prevention of food wastage;
 - acquire the necessary skills to bake bread and other bakery products using various bakery methods, including with the use of dried yeast;
 - know how to use the utensils and equipment in the galley, for instance know how to use the oven to cook foods such as meat and vegetables. Knowledge of the correct use of cutting boards and kitchen knives is important;
 - be fully aware of how to use fiddles and pan holders correctly in situations of bad weather;
 - understand the value of hygienic and practical conditions for cooking, in order to facilitate the preparation of food and the improvement of work processes.

4.2.5. Methods of preparation

74. The cook should know how to apply different food preparation techniques, be aware of the advantages, disadvantages and typical uses of each technique and have a knowledge of the most common ways of preparing food to meet special cultural and religious requirements. The cook should recognize different butchery cuts and have knowledge of various cooking methods.¹

75. The cook should also have knowledge of:
- how to handle the practical production of hot and cold food, including different types of meat, fruit and vegetables in combination with different accompaniments, spices and cooking methods, taking into account the different senses (appearance, taste, colour, composition, and so on) and good work processes, allowing the meals to be finished and served at the right time;
 - how to retain the nutritional content, including knowledge of the chemical processes in cooking that affect raw ingredients and their nutrients;

¹ Such as: all types of roasting; spit grilling; using the microwave; using a water bath; pan frying; using a deep fat fryer; blanching; boiling; poaching; steaming; braising; marinating; and baking.

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- ideal roasting and core temperatures for meat and how to use probe thermometers;
 - the importance of the cooking method for the consistency, appearance and taste of a meal and good principles for serving food;
 - how to plan and prepare snacks and bake bread and cakes.

4.2.6. Presentation and serving

76. A meal can be served and presented in many different ways. Methods of presentation and service generally depend on tradition, culture or religion. While sense of taste is by and large the same across the globe, the taste experience is always individual, as it is fundamentally a reflection of tradition and previous experience.
77. For most people, mealtimes provide an important social meeting opportunity and so it is important for the cook to have some insight into the customers' needs.
78. The buffet is the most common way of serving food on board ships. The presentation of a meal in terms of colour, smell and taste has a major impact for those who are to eat it. Hot food should be served hot and likewise cold food should be served cold. Serving temperature and the presentation of the meal can critically influence the perception of a meal. The cook should therefore have knowledge of fundamental principles for presentation and serving.

4.2.7. Practical cookery under unforeseen circumstances

79. The cook should also be able to adapt menu plans during the voyage in the event of unforeseen changes in circumstances.
80. There are special on-board challenges. The weather can be bad and it can be difficult to prepare a menu as planned. Safety always comes first, so it should be possible to depart from the planned menu in, for example, heavy weather or on an extended voyage and to cope with the challenges of long voyages by proper planning and provisioning before departure.
81. The cook should know the procedures required to increase the level of safety in the galley during bad weather, for example by using fiddles, holders, clamps and high-sided pans.

4.2.8. Purchasing

82. The cook's role varies when it comes to purchasing, depending on corporate policies, catering facilities and competencies. In some cases, the master does most of the purchasing, and in others it involves joint cooperation. A fully qualified cook should be able to manage the purchasing process.
83. All cooks should be able to have an overview of and should systematically monitor the products in the ship's storage rooms and alert the master if there is any lack of provisions.
84. Cooks should keep informed about: the rotation of stores and meal planning; the size of the crew; the amount of stores held; and the shelf life, price and quality of food.
85. A fully qualified cook should be able to order supplies, either at a local shop or online.

4.2.9. Dietary economics

86. The cook should be able to understand general dietary economics, be able to perform calculations, know how to use food resources by way of reusing leftovers and be aware that food wastage has an impact on the global environment.

4.2.10. Administration, management and supervision

87. The fully qualified cook should:

- know how to deal with administrative and financial issues, accounts and menu planning;
- be able to understand all the administrative tasks relating to galley operations and day-to-day food production, in some cases in conjunction with the master;
- be able to plan and undertake managerial tasks, supervise other catering personnel and provide basic instruction or training.

4.3. Prevention of food-borne disease

Table 4.2. Prevention of disease while preparing food

Professional level	Learning outcome		Methods for demonstrating competence
Fully qualified cook (responsible person)	Understanding of: <ul style="list-style-type: none"> ■ food-borne disease and what it is ■ the reasons for food-borne disease and its prevention ■ a fundamental understanding of food safety, GMPs and self-assessment procedures ■ supervision and instruction 	Knowledge of: <ul style="list-style-type: none"> ■ the symptoms of food-borne disease ■ the rules for food safety Ability to: <ul style="list-style-type: none"> ■ implement and practise rules ■ supervise, instruct and train others working in the galley to ensure procedures are carried out (GMPs) ■ inspect food to identify problems and take corrective action ■ define procedures appropriate for the particular galley facilities 	Written: <ul style="list-style-type: none"> ■ Multiple choice test ■ Case-based test Oral: <ul style="list-style-type: none"> ■ Demonstrate ability to give instruction and supervise colleagues Sanctioned by approved assessor
Trained and instructed cook Ships with fewer than ten crew members (responsible person)	Understanding of: <ul style="list-style-type: none"> ■ food-borne disease and what it is ■ the reasons for food-borne disease and its prevention ■ a fundamental understanding of food safety, GMPs and self-assessment procedures 	Knowledge of: <ul style="list-style-type: none"> ■ the symptoms of food-borne disease ■ the rules for food safety Ability to: <ul style="list-style-type: none"> ■ implement and practise rules ■ supervise and train others working in the galley to ensure procedures are carried out 	<ul style="list-style-type: none"> ■ Multiple choice and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor

Professional level	Learning outcome		Methods for demonstrating competence
Catering staff and non-fully qualified cook (in circumstances of exceptional necessity)	<ul style="list-style-type: none"> ■ food-borne disease and what it is ■ the reasons for food-borne disease and its prevention ■ fundamental understanding of food safety, GMPs and self-assessment procedures 	<ul style="list-style-type: none"> ■ inspect food to identify problems and take corrective action ■ define procedures appropriate for the particular galley facilities <p>Knowledge of:</p> <ul style="list-style-type: none"> ■ the rules for controlling bacterial growth ■ the symptoms of food-borne disease ■ the fundamentals of food safety and where to find further information <p>Can follow:</p> <ul style="list-style-type: none"> ■ procedures in a self-assessment system 	<ul style="list-style-type: none"> ■ Multiple choice or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction <p>Sanctioned by fully qualified cook, master or approved assessor</p>

4.3.1. Food-borne disease

88. Food-borne disease is a general term used to describe any disease or illness caused by eating contaminated food and may also be referred to as “food poisoning”.

4.3.2. Food can cause illness

89. It is important to have knowledge of the most common reasons for contamination from physical objects, chemical substances and micro-organisms. The most serious problems in cookery are often caused by micro-organisms and viruses. Ensuring good hygiene requires knowledge about micro-organisms and how they can be transferred to food and understanding the procedures for keeping stores in good order.

4.3.3. High-risk foods

90. It is important to have knowledge of which foods are especially risky. Food could already be contaminated when delivered to the ship because of faults during production or a breach in the refrigeration chain. Food products can easily be contaminated by bacteria when handled incorrectly. It is easy for micro-organisms to spread to other food by careless work processes. All seafarers in the galley should follow food safety procedures, including when working under pressure to serve food quickly. Furthermore, personnel should be aware of the factors that cause bacteria to reproduce, that could lead to the contamination of even low-risk foods.

4.3.4. Micro-organisms can cause illness

91. It is important to have knowledge of why micro-organisms can cause illness, what happens when they get into the body, and how these can be transferred from people to food and from food to people.

4.3.5. Bacteria

92. It is important to have knowledge of the fact that some micro-organisms are useful while others make food rot (which can be smelt and seen). The most dangerous micro-organisms – pathogenic bacteria – give no indications that they are within food and people cannot see or smell them.
93. It is also important to understand: how bacteria reproduce, become dormant and form spores; that the rate of bacterial growth is influenced by the nutritious value of the food, time, humidity and temperature; how to control these factors; and the “hurdle effect”, in other words how food may be processed during production to minimize the risk of contamination prior to delivery to the ship.

4.3.6. Symptoms of food-borne disease

94. It is important to have knowledge of:
- the bacteria that cause food-borne disease and the names of these pathogenic bacteria;
 - the food products most susceptible to bacteria, which can result in food-borne disease if eaten when contaminated;
 - the symptoms of food-related illness;
 - the incubation period between the consumption of contaminated food products and the break-out of a food-related illness;
 - the most common signs of food-borne disease, variations in the illness pathway and the worst case scenarios in which food-borne disease can lead to complications and permanent consequences and ultimately death.

4.3.7. Food-borne disease prevention

95. It is important to know how food-borne disease can be prevented, in other words to have knowledge of:
- actions that can be taken in the workplace;
 - the influence of behaviour and personal hygiene;
 - the significance of keeping good order and carefully planned work processes;
 - the importance of correct handling and protection from cross-contamination;
 - the importance of correct storage and protection from vermin and pests;
 - the importance of chilling and temperature monitoring;
 - the importance of heat in cooking food;
 - the importance of dishwashing, clean cutlery and crockery and maintenance of equipment;
 - the importance of cleaning;
 - the importance of a self-assessment system and of following procedures.

4.3.8. Cross-contamination

96. It is important to understand what cross-contamination is, since it is one of the most significant reasons for food-borne disease. It is important to have knowledge of:

- how good work processes can prevent cross-contamination;
- why structured storage in dry stores, refrigerators and freezers is important;
- whereabouts in the process cross-contamination most commonly occurs;
- the equipment that can help in prevention.

4.3.9. Food safety self-assessment system

97. The systems used to maintain food safety on board depend on local conditions. The cook should be familiar with different food safety systems and recognize the importance of GMPs, systematic self-assessment and HACCP principles. All types of vessels should take HACCP principles into account. The following guidelines provide a systematic approach to self-assessment:

- What is a self-assessment programme?
 - A self-assessment programme includes procedures to provide documentation that the master or cook is conducting quality control and quality assurance procedures on all processes that could affect food production and food safety in the galley.
 - A self-assessment programme could be implemented to ensure compliance with food safety legislation.
 - Self-assessment uses CCPs. The CCPs are critical points in the food production and cooking processes that can be checked.
 - Self-assessment may involve both formal written procedures and less formal procedures. For example, this could involve checking temperatures on deliveries, during the preparation of food and when heating and subsequently chilling cooked foods.
- Who is responsible for a self-assessment programme?
 - Self-assessment procedures should be drawn up by the shipowner.
 - The master should run the self-assessment programme as intended and in accordance with other procedures on board relating to safety and maintenance. The fully qualified cook should be able to identify CCPs and demonstrate upon official request that food safety procedures have been implemented.

4.4. Food hygiene

Table 4.3. Procedures for handling food and catering

Professional level	Learning outcome		Methods for demonstrating competence
Fully qualified cook (responsible person)	Understanding of: <ul style="list-style-type: none"> ■ how to store food products to maintain safe shelf life and avoid contamination ■ the need for correct cleaning of the galley and storage areas and how this should be done ■ how to monitor and supervise staff involved in food preparation to ensure compliance with food hygiene procedures 	Knowledge of: <ul style="list-style-type: none"> ■ the critical points in storing and serving food Can: <ul style="list-style-type: none"> ■ draw up and implement hygiene procedures and instruct others working in the galley ■ follow a cleaning plan ■ inspect, supervise, delegate 	Written: <ul style="list-style-type: none"> ■ Multiple choice test ■ Case-based test Oral: <ul style="list-style-type: none"> ■ Demonstrate ability to give instruction and supervise colleagues Sanctioned by approved assessor
Trained and instructed cook Ships with fewer than ten crew members (responsible person)	<ul style="list-style-type: none"> ■ how to store food products to maintain safe shelf life and avoid contamination ■ the need for correct cleaning of the galley and storage areas and how this should be done ■ how to monitor and supervise staff involved in food preparation to ensure compliance with food hygiene procedures 	Knowledge of: <ul style="list-style-type: none"> ■ the critical points in storing and serving food Can: <ul style="list-style-type: none"> ■ draw up and implement hygiene procedures and instruct others working in the galley ■ follow a cleaning plan ■ inspect, supervise, delegate 	Written/oral: <ul style="list-style-type: none"> ■ Multiple choice and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor
Catering staff and non-fully qualified cook (In circumstances of exceptional necessity)	<ul style="list-style-type: none"> ■ how to store food products to maintain safe shelf life and avoid contamination ■ the need for correct cleaning of the galley and storage areas and how this should be done 	Knowledge of: <ul style="list-style-type: none"> ■ the critical points in storing and serving food Can: <ul style="list-style-type: none"> ■ follow a cleaning plan 	<ul style="list-style-type: none"> ■ Multiple choice or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor

4.4.1. How to break the food-borne disease chain

98. It is important to understand: that food products should be protected against contamination; that bacterial growth should be prevented by eliminating ideal conditions for growth, such as humidity and warmth; that the refrigeration chain should be maintained by monitoring temperatures and recording and acting on fluctuations; and that bacteria in food can be destroyed by cooking and reheating at the correct temperatures.

4.4.2. How to clean and disinfect the galley, mess and stores and why it is important to do so

99. It is important to have knowledge of:

- where and how to clean and disinfect and how cleaning and disinfection can be used against micro-organisms and pests or vermin;
- how to use cleaning equipment and products and how to ensure correct dilution;

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- how to store cleaning products and personal protective equipment;
 - the most hazardous cleaning products and disinfectants and their impact on people and the environment;
 - how to draw up cleaning plans and procedures and detailed workplans;
 - how high cleaning standards can act as a good example and influence other people.

4.4.3. How food should be stored and why it is important to keep good order in stores

100. It is important to have knowledge of:

- how to store highly perishable, perishable and long-life foods;
- how to read date labelling;
- how to store dry foods safely and correctly, especially after opening;
- how to clean and keep good order in the stores and the galley in general;
- the best way to maintain the nutritional value of stored vegetables;
- how to handle food products on delivery and how to stack shelves (first-in, first-out system).

4.4.4. How to handle refrigerated and frozen products

101. It is important to have knowledge of:

- how to organize the cold/freezer rooms and the first-in, first-out system;
- how to store various types of food products;
- ideal refrigeration and freezer temperatures;
- shelf life during refrigeration and how to prevent cross-contamination;
- how to defrost and repack food and how to use containers approved for storing food;
- how to monitor and document refrigerator and freezer temperatures.

4.4.5. How to handle food during preparation

102. It is important to have knowledge of:

- how to organize work processes and ensure correct product flows;
- how to carry out good work processes when cleaning and chilling are in progress;
- how to use equipment, utensils and fiddles correctly, including kitchen knives;
- which product groups should be kept separated to avoid cross-contamination;
- ideal roasting and core temperatures for meat and the use of probe thermometers.

4.4.6. How to keep and reheat leftovers and how to reuse them in other dishes

103. It is important to have knowledge of:

- how to reuse leftovers in menu planning;
- how to ensure food safety when refrigerating leftovers;
- the importance of marking dates for reuse;
- how to ensure the ideal core temperature when reheating;
- how to use the microwave oven and microwave-safe packaging.

4.4.7. How to serve food safely

104. It is important to have knowledge of:

- how to handle food safely when organizing a buffet;
- the general rule that food should be kept on a buffet for a maximum of three hours, in order to maintain food quality;
- how to maintain constant heating and chilling on a buffet;
- how to correctly chill food that comes hot from a buffet;
- the importance of maintaining good hygiene at tables in the mess during meals;
- the importance of using alcohol-based hand rub dispensers for the disinfection of hands.

4.5. Personal hygiene

Table 4.4. Procedures for handling food and catering

Professional level	Learning outcome		Methods for demonstrating competence
Fully qualified cook (Responsible person)	Understanding of: <ul style="list-style-type: none"> ■ the importance of personal hygiene for food safety ■ how to practise good personal hygiene 	Knowledge of: <ul style="list-style-type: none"> ■ the basic rules of personal hygiene ■ the safety rules in the galley ■ when to notify the master when there are concerns about food contamination or procedures Can: <ul style="list-style-type: none"> ■ define rules and processes for the particular galley ■ monitor compliance ■ supervise others 	Written: <ul style="list-style-type: none"> ■ Multiple choice test ■ Case-based test Oral: <ul style="list-style-type: none"> ■ Demonstrate ability to give instruction and supervise colleagues Sanctioned by approved assessor
Trained and instructed cook	<ul style="list-style-type: none"> ■ the importance of personal hygiene for food safety 	Knowledge of: <ul style="list-style-type: none"> ■ the basic rules of personal 	Written/oral: <ul style="list-style-type: none"> ■ Multiple choice and/or test in

Professional level	Learning outcome		Methods for demonstrating competence
Ships with fewer than ten crew members (responsible person)	<ul style="list-style-type: none"> how to practise good personal hygiene 	hygiene <ul style="list-style-type: none"> the safety rules in the galley when to notify the cook and/or master with concerns about food contamination or procedures Can: <ul style="list-style-type: none"> follow rules and procedures 	e-learning programme <ul style="list-style-type: none"> Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor
Catering staff and non-fully qualified cook (in cases of exceptional necessity)	<ul style="list-style-type: none"> the importance of personal hygiene for food safety how to practise good personal hygiene 	Knowledge of: <ul style="list-style-type: none"> the basic rules of personal hygiene when to notify the cook and/or master with concerns about food contamination or procedures Can: <ul style="list-style-type: none"> follow rules and procedures 	<ul style="list-style-type: none"> Multiple choice or test in e-learning programme Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor

4.5.1. Personal hygiene

105. It is important to have knowledge of:

- the importance of taking personal responsibility for good hygiene;
- the importance of hand washing and how to wash hands thoroughly;
- what to wear in the galley;
- the factors that can put other people's health at risk;
- the importance of personal behaviour and of taking the lead in setting a good example.

4.5.2. Skin infections

106. It is important to have knowledge of: the causes of allergies; how to prevent skin infections; how to prevent skin allergy from foods; and allergic symptoms.

4.5.3. Gloves

107. Gloves should be approved for food preparation and should be of a good quality. It is important to have knowledge of:

- when gloves should be worn to protect food, for example when hands have burns, cuts or infections;
- the different types of glove and how to prevent cross contamination by using gloves;
- the fact that using gloves can never be a replacement for washing hands between work processes.

4.5.4. When to stop working for the sake of the health of others

108. It is important to have knowledge of when to stay out of the galley due to illness, what to do if falling ill and when to return to work without putting the health of others at risk.

4.6. Nutrition and health – Balanced menus

Table 4.5. Provide the crew with a nutritionally balanced diet

Professional level	Learning outcome		Methods for demonstrating competence
Fully qualified cook (responsible person)	<p>Understanding of:</p> <ul style="list-style-type: none"> ■ the composition of a nutritionally balanced diet ■ the importance of the constituents of a diet: fats, proteins, carbohydrates, vitamins, minerals and trace elements ■ the importance of diet for health 	<p>Knowledge of:</p> <ul style="list-style-type: none"> ■ what constitutes a nutritionally balanced diet ■ the correlation between diet and lifestyle disease ■ when to order provisions or alert the master that additional stores should be acquired <p>Can:</p> <ul style="list-style-type: none"> ■ make diet plans and menus that provide a nutritionally balanced diet ■ adapt menus when changes occur during the voyage ■ follow a recipe and prepare a nutritionally balanced menu 	<p>Written:</p> <ul style="list-style-type: none"> ■ Multiple choice test ■ Case-based test comprising making a diet plan <p>Sanctioned by approved assessor</p>
Trained and instructed cook Ships with fewer than ten crew members (responsible person)	<ul style="list-style-type: none"> ■ the composition of a nutritionally balanced diet ■ the importance of the constituents of a diet: fats, proteins, carbohydrates, vitamins, minerals and trace elements ■ the importance of diet for health 	<p>Knowledge of:</p> <ul style="list-style-type: none"> ■ what constitutes a nutritionally balanced diet ■ the correlation between diet and lifestyle disease ■ when to order provisions or alert the master that additional stores should be acquired <p>Can:</p> <ul style="list-style-type: none"> ■ make diet plans and menus that provide a nutritionally balanced diet ■ adapt menus when changes occur during the voyage ■ follow a recipe and prepare a nutritionally balanced menu 	<p>Written:</p> <ul style="list-style-type: none"> ■ Multiple choice test and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction <p>Sanctioned by approved assessor</p>
Catering staff and non-fully qualified cook (in circumstances of exceptional necessity)	<ul style="list-style-type: none"> ■ the importance of the constituents of a diet: fats, proteins, carbohydrates, vitamins, minerals and trace elements ■ the importance of diet for health 	<ul style="list-style-type: none"> ■ is familiar with what constitutes a nutritionally balanced diet ■ can follow a recipe and prepare a nutritionally balanced menu 	<ul style="list-style-type: none"> ■ Multiple choice test and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction <p>Sanctioned by approved assessor</p>

4.6.1. Understanding nutrition

109. Fully qualified cooks with responsibility for the crew's diet should be:

- aware of the composition of the components of the diet and ensure that such components are nutritionally balanced. This includes awareness of the recommendations of the competent national authorities or the WHO and implies, among other things, knowledge of the content and composition of food in terms of fats, proteins, carbohydrates, vitamins, minerals and trace elements;
- able to provide a diet plan that provides the crew with the correct nutrition in the long term. The diet plan should comply with international (WHO/Food and Agriculture Organization of the United Nations (FAO)) or national requirements for recommended nutrients and drawn up taking account of cultural and religious issues relating to food;
- able to translate the diet plan into specific purchasing plans, menus and dishes or recipes so that the energy content in various types of food, menus and diet plans can be calculated and assessed.

110. The cook should have a basic understanding of:

- nutritional physiology;
- physiological factors;
- the body's metabolism;
- the role of nutrients;
- nutritional recommendations concerning carbohydrates, dietary fibre, fats, proteins, alcohol, water, salts, minerals and vitamins;
- the importance of diet and exercise; and
- the connection between lifestyle disease and diet.

4.6.2. Planning – Purchasing and competencies

111. The cook should:

- be able to draw up a varied diet plan that satisfies current nutritional requirements;
- be aware of all the food groups and of the composition of a diet plan and know how different foods are used;
- be aware of special religious and cultural food-related issues;
- be able to read, understand and follow the instructions in a recipe;
- be able to draw up a menu plan for a lengthy period;
- be able to order food products to support a menu plan, taking due account of raw ingredient usage and the financial implications.

4.6.3. Food allergy and intolerance

112. It is important that catering personnel have knowledge of food allergies and the potential reactions, including the fact that some allergic reactions can be life threatening. It is also important for them to be aware of global differences in common allergic reactions. The cook should know how to use suitable foods as substitutes when preparing nutritious meals. All cooks with responsibility for cooking daily meals should have an understanding of:

- the most common food allergies and food intolerances (and what causes them);
- the impact of being exposed to a substance to which you are allergic;
- how food allergies vary between different parts of the world;
- the alternatives that can be used instead of foods that cause allergy;
- how to define diet plans and menus that take account of crew members with allergies (this also means being aware of suitable alternative products).

4.6.4. Awareness of the importance of nutrition for combating lifestyle disease

113. Cooks should be aware of the role of nutrition in combating lifestyle diseases such as diabetes, high blood pressure, breathing difficulties (including sleep apnoea), stroke, cardiovascular disease and cancer. Cooks should ensure that crew members are given healthy dietary options.

114. A nutritionally balanced diet should ensure that all crew members have a reduced risk of developing the lifestyle diseases associated with being overweight. Therefore, the cook should be able to draw up a menu plan in line with international and national recommendations.

4.7. Religious and cultural aspects

Table 4.6. Adapting menus for different cultures and religions

Professional level	Learning outcome	Methods for demonstrating competence
Fully qualified cook (responsible person)	Understanding of: <ul style="list-style-type: none"> ■ religious and cultural rituals, customs and guidelines associated with food and meals 	Knowledge of: <ul style="list-style-type: none"> ■ the importance of religious and cultural rituals, customs and guidelines Can: <ul style="list-style-type: none"> ■ plan menus and cook meals on the basis of religious and cultural guidelines – for instance ensuring that halal meat is marked and specific methods of butchery are used
		Written: <ul style="list-style-type: none"> ■ Multiple choice test ■ Case-based test demonstrating planning of menus Sanctioned by approved assessor

Professional level	Learning outcome		Methods for demonstrating competence
Trained and instructed cook Ships with fewer than ten crew members (responsible person)	<ul style="list-style-type: none"> religious and cultural rituals, customs and guidelines associated with food and meals 	Knowledge of: <ul style="list-style-type: none"> the importance of religious and cultural rituals, customs and guidelines Can: <ul style="list-style-type: none"> plan menus and cook meals on the basis of religious and cultural guidelines – for instance ensuring halal meat is marked and specific methods of butchery are used 	<ul style="list-style-type: none"> Multiple choice test and/or test in e-learning programme Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor
Catering staff and non-fully qualified cook (in circumstances of exceptional necessity)	<ul style="list-style-type: none"> religious and cultural rituals, customs and guidelines associated with food and meals 	<ul style="list-style-type: none"> familiar with the importance of religious and cultural rituals, customs and guidelines can prepare one or more meals on the basis of religious and cultural guidelines 	<ul style="list-style-type: none"> Multiple choice test and/or test in e-learning programme Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor

115. The cook and other personnel who handle and make food for others should have knowledge of:

- the rituals, customs and guidelines associated with food and meals, for example on religious or special occasions such as Christmas and Ramadan;
- the requirements concerning the segregation of different types of food for cultural and religious reasons;
- halal and kosher dietary requirements, including slaughter methods and the prohibition on eating shellfish or animal derivatives, such as gelatin (which is often produced from pork and is often used in desserts, jelly or candy in western cuisine). The cook and other personnel who handle and make food for others should ensure that the above requirements and religious and cultural issues are reflected in purchasing.

4.8. Communication and other basic skills

Table 4.7. Ensuring communication and other basic skills

Professional level	Learning outcome		Methods for demonstrating competence
Fully qualified cook (responsible person)	Understanding of: <ul style="list-style-type: none"> the importance of being able to communicate with the crew and master the importance of being able to read, write and count in order to perform the job as a cook the importance of mathematical skills, including calculating fractions and percentages 	Knowledge of: <ul style="list-style-type: none"> how to convert units of measurement in recipes Can: <ul style="list-style-type: none"> communicate on nutrition and menus, orally and in writing put theory into practice 	Written: <ul style="list-style-type: none"> Multiple choice test Case-based test Oral: <ul style="list-style-type: none"> Demonstrate ability to communicate, instruct and supervise Sanctioned by approved assessor

Professional level	Learning outcome		Methods for demonstrating competence
Trained and instructed cook Ships with fewer than ten crew members (responsible person)	<ul style="list-style-type: none"> ■ the importance of being able to communicate with the crew and master ■ the importance of being able to read, write and count in order to perform the job as a cook ■ the importance of mathematical skills, including calculating fractions and percentages 	<ul style="list-style-type: none"> ■ calculate nutritional needs of crew, divide food supplies to portions appropriate for the number of crew and length of voyage ■ calculate prices and estimate possible wastage of food <p>Knowledge of:</p> <ul style="list-style-type: none"> ■ how to convert units of measurement in recipes <p>Can:</p> <ul style="list-style-type: none"> ■ communicate on nutrition and menus, orally and in writing ■ put theory into practice ■ calculate nutritional needs of crew, divide food supplies to portions appropriate for the number of crew and length of voyage ■ calculate prices and estimate possible wastage of food 	<ul style="list-style-type: none"> ■ Multiple choice test and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction <p>Sanctioned by approved assessor</p>
Catering staff and non-fully qualified cook (in circumstances of exceptional necessity)	<ul style="list-style-type: none"> ■ the importance of being able to read, write and count in order to perform the job as a cook 	<ul style="list-style-type: none"> ■ can communicate on menus, orally and in writing ■ basic maths skills 	<ul style="list-style-type: none"> ■ Keeping a logbook of activities and demonstrating understanding during training and instruction <p>Sanctioned by approved assessor</p>

4.8.1. Language skills

116. Personnel with responsibility for nutrition on board should provide oral and written information to the crew about nutrition in the working language determined by the shipowner, for example with regard to the composition of the food, including its allergen content or constituents that could conflict with the religion or culture of some individuals.

117. All the available working documents, reference materials and cookbooks available on board should be in the working language selected in accordance with the ISM Code or in a working language understood by the crew. Personnel with responsibility for nutrition should have language skills that enable them to follow directions and recipes in practice.

4.8.2. Mathematics skills

118. Personnel with responsibility for the galley should have mathematics skills in order to be able to convert units of measurement in recipes, calculate wastage, use spreadsheets (also electronically), and deal with calculating percentages and elementary fractions.

4.8.3. Computer skills

119. Personnel with responsibility for the management of the galley should be able to use general IT tools and programmes, for example computers for word and number processing and menu translations, and should understand the utility of such tools and of documenting and communicating solutions for IT-related problems.

4.8.4. General communication skills

120. The cook should:

- understand that it is important for well-being on board to communicate with the crew. It is important for the cook to master the most basic principles of communication;
- recognize that it is impossible to know everything about the various cultural, religious or health-related issues of each crew member;
- be able to respectfully ask crew members for information about food allergies and other dietary restrictions or needs, so that menu plans can be adapted appropriately. The cook should also be able to discuss the limitations of the catering services and determine what accommodations would meet the needs of the crew;
- be able to constructively communicate with the master when ordering provisions;
- be able to manage, instruct and train other seafarers working in the galley.

4.9. Workplace safety

Table 4.8. Prevention of accidents, sickness and wear and tear

Professional level	Learning outcome		Methods for demonstrating competence
Fully qualified cook (responsible person)	Understanding of: <ul style="list-style-type: none"> ■ risks ■ risk assessments ■ prevention ■ instruction ■ ISM Code (structure) ■ reporting occupational injuries 	Knowledge of: <ul style="list-style-type: none"> ■ the risks in the galley and in provisioning Ability to: <ul style="list-style-type: none"> ■ undertake planning and undertake a risk assessment ■ practise safe behaviour ■ provide instruction ■ adapt/maintain ISM in the galley, etc. ■ supervise risk assessment and ensure compliance with safety procedures and equipment maintenance ■ follow ship procedures for follow-up on injury report and post-incident corrective action to avoid future accidents or exposure 	Written: <ul style="list-style-type: none"> ■ Multiple choice test ■ Case-based test Oral: <ul style="list-style-type: none"> ■ Demonstrate ability to give instruction and supervise colleagues Sanctioned by approved assessor
Trained and instructed cook Ships with fewer than ten crew members (responsible person)	<ul style="list-style-type: none"> ■ risks ■ risk assessments ■ prevention ■ instruction ■ ISM Code (structure) ■ reporting occupational injuries 	Knowledge of: <ul style="list-style-type: none"> ■ the risks in the galley and in provisioning Ability to: <ul style="list-style-type: none"> ■ undertake planning and undertake a risk assessment ■ practise safe behaviour ■ provide instruction 	<ul style="list-style-type: none"> ■ Multiple choice and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor

Professional level	Learning outcome		Methods for demonstrating competence
Catering staff and non-fully qualified cook (in circumstances of exceptional necessity)	<ul style="list-style-type: none"> ■ risks ■ risk assessments ■ prevention ■ reporting occupational injuries 	<ul style="list-style-type: none"> ■ adapt/maintain ISM in the galley, etc. <p>Knowledge of:</p> <ul style="list-style-type: none"> ■ the risks in the galley and in provisioning <p>Ability to:</p> <ul style="list-style-type: none"> ■ practise safe behaviour ■ follow safety procedures ■ report injuries or exposure 	<ul style="list-style-type: none"> ■ Multiple choice and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction <p>Sanctioned by approved assessor</p>

4.9.1. Awareness of potential hazards

121. Everyone working in the galley should be aware of the potential hazards in the galley, which include: cuts from using knives (the most common injury); scalds; burns; cuts from using machines; injuries from lifting; caustic burns; and injuries resulting from trips and falls.

4.9.2. Safe behaviour in the galley

122. Everyone working in the galley should know how to behave safely in the galley, including how to:

- ensure that the body is not put under unnecessary strain and that stores are stowed safely for heavy weather;
- monitor the galley and keep stores tidy and in good order to prevent trips and falls;
- secure pans and other equipment in heavy seas;
- handle knives and use chainmail gloves;
- deal with and operate the machinery in the galley;
- choose appropriate clothing and personal protective equipment;
- secure doors and hatches;
- follow directions for the usage of cleaning products.

4.9.3. Risk assessment

123. Education and training should enable the cook to contribute to risk assessment processes, involve the personnel working in the galley in such processes and make a plan to prevent accidents and wear and tear.

124. The cook should know how to carry out the most important steps in a risk assessment process, including:

- identifying the potential for accidents or wear and tear associated with work in the galley;

- conducting an assessment of how often the hazard really occurs, how great the consequences are, which hazards are easy to prevent and which are difficult to prevent;
- developing a solution with the involvement of the relevant safety organization and the personnel working in the galley;
- drawing up a written action plan showing solutions to be implemented, indicating when and who is responsible.

125. Risk assessment is a continuous, dynamic and inclusive process. Preventative actions should be evaluated and reassessed at regular intervals and following accidents or near misses. The process should not be limited to those working in the galley – other seafarers may also have helpful contributions in the identification of potential risks and the development of safer solutions.

4.9.4. Knowledge of the ISM Code and safety management systems

126. The cook and other personnel with responsibility for nutrition should:

- be able to apply the ISM Code;
- know, follow and give input to procedures adapted for the work they do in the galley and associated areas, maintain the system and provide instruction on it;
- ensure that all other personnel working in the galley and associated areas know about the ISM Code and the procedures for their work that should be observed.

4.9.5. Reporting occupational injuries

127. The cook and other personnel with responsibility for nutrition should know that occupational injuries (and possibly also near misses if the shipowner records these) should be reported and should have a clear understanding of their responsibilities for reporting occupational injuries.

128. All other personnel working in the galley and associated areas should contribute their knowledge and observations when reporting occupational injuries.

129. The fully qualified cook or safety officer should ensure that post-incident procedures are defined and corrective actions taken to minimize the risk that an injury or exposure could occur in the future.

4.10. First aid in the galley

Table 4.9. Limiting the consequences of accidents

Professional level	Learning outcome	Methods for demonstrating competence
Fully qualified cook (responsible person)	Understanding of: <ul style="list-style-type: none"> ■ the accidents that can occur in the galley and associated areas ■ the relevant first aid 	Knowledge of: <ul style="list-style-type: none"> ■ accidents and relevant first aid
		Written: <ul style="list-style-type: none"> ■ Multiple choice test

Professional level	Learning outcome		Methods for demonstrating competence
		Can:	Oral:
		<ul style="list-style-type: none"> ■ provide relevant first aid ■ instruct others to give first aid 	<ul style="list-style-type: none"> ■ Give an account of the principles of first aid
			Sanctioned by approved assessor
Trained and instructed cook Ships with fewer than ten crew members (responsible person)	<ul style="list-style-type: none"> ■ the accidents that can occur in the galley and associated areas ■ the relevant first aid 	<ul style="list-style-type: none"> ■ knowledge of accidents and relevant first aid ■ can provide relevant first aid 	<ul style="list-style-type: none"> ■ Multiple choice test and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction
			Sanctioned by approved assessor
Catering staff and non-fully qualified cook (in circumstances of exceptional necessity)	<ul style="list-style-type: none"> ■ the accidents that can occur in the galley and associated areas ■ the relevant first aid 	<ul style="list-style-type: none"> ■ Knowledge of accidents and relevant first aid ■ Can provide relevant first aid 	<ul style="list-style-type: none"> ■ Multiple choice test and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction
			Sanctioned by the approved assessor

130. Seafarers working in the galley should, like all seafarers, be able to provide first aid, but they should also know how to provide specific first aid for the particular kinds of accidents that can occur in the galley, such as fires, accidents with machinery, cuts, scalds and caustic burns. It is also important for personnel to know how to extinguish burning oil – absolutely no attempt should be made to put it out with water. Instead, the fire should be extinguished by smothering it.

131. It is also important for crew members to be able to assess when medical assistance should be sought. The competent authority and the shipowner have the duty to provide medical care on board ship and ashore defined in Regulation 4.1 and Standard A4.1 of the MLC, 2006.

4.11. Waste

Table 4.10. Prevention of pollution, wastage of resources and illness

Professional level	Learning outcome		Methods for demonstrating competence
Fully qualified cook (responsible person)	Understanding of: <ul style="list-style-type: none"> ■ how to prevent wastage of resources, pollution and illness ■ how to balance issues of wastage against hygiene and safety 	Ability to: <ul style="list-style-type: none"> ■ plan to reduce wastage of resources, pollution and illness ■ practise behaviour that minimizes the wastage of resources, pollution and illness ■ use the waste record book and waste management plan ■ manage, supervise and delegate to other catering staff 	Written: <ul style="list-style-type: none"> ■ Multiple choice test
			Sanctioned by approved assessor

Professional level	Learning outcome		Methods for demonstrating competence
Trained and instructed cook Ships with fewer than ten crew members (responsible person)	<ul style="list-style-type: none"> ■ how to prevent wastage of resources, pollution and illness ■ how to balance issues of wastage against hygiene and safety 	Ability to: <ul style="list-style-type: none"> ■ plan to reduce wastage of resources, pollution and illness ■ practise behaviour that minimizes the wastage of resources, pollution and illness ■ use the waste record book and waste management plan 	<ul style="list-style-type: none"> ■ Multiple choice test and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor
Catering staff and non-fully qualified cook (in circumstances of exceptional necessity)	<ul style="list-style-type: none"> ■ how to prevent wastage of resources, pollution and illness 	Ability to: <ul style="list-style-type: none"> ■ practise behaviour that minimizes the wastage of resources, pollution and illness ■ implement the waste management plan, including with regard to the collection, storage and disposal of waste 	<ul style="list-style-type: none"> ■ Multiple choice test and/or test in e-learning programme ■ Keeping a logbook of activities and demonstrating understanding during training and instruction Sanctioned by approved assessor

4.11.1. *Balancing wastage, hygiene and safety*

132. Education and training should inform the cook about balancing the competing issues of minimizing food wastage, preventing pollution and preventing the spread of food-borne disease.

4.11.2. *Waste collection*

133. The cook should be trained to use the most appropriate systems of waste collection or to establish a system on board. He or she should also know about the most appropriate containers for collecting waste (bins with lids, preferably with a foot pedal) in the galley and mess rooms and on the bridge and where to position them.
134. All catering personnel should be able to use the system to ensure proper collection of waste and know: how bins and containers should be disinfected; how often waste should be collected from various bins (for example, waste from the galley should be collected at least at the end of each work day); how waste should be sorted (for example, into plastic, metal and paper or other combustibles); and how to ensure regular checks on the shelf life of food in store.

4.11.3. *Waste storage*

135. The cook should be trained in the most appropriate waste storage systems. All personnel working in the galley should know where waste should be stored (in a closed room, not near stores and provisions, not on the floor and in bags that can be closed) and at what temperatures.

4.11.4. *Waste disposal*

136. All personnel working in the galley should know how to dispose of waste appropriately, for example when it is appropriate to use a waste grinder and when waste should be compacted.

137. On ships of over 400 gt or with a crew of more than 15, the cook should know how to record and document waste in the waste record book and how to develop and comply with a waste management plan.

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Appendix I

MLC, 2006: Regulation 3.2, Standard A3.2 and Guideline B3.2 – Food and catering

REGULATION 3.2 – FOOD AND CATERING

Purpose: To ensure that seafarers have access to good quality food and drinking water provided under regulated hygienic conditions

1. Each Member shall ensure that ships that fly its flag carry on board and serve food and drinking water of appropriate quality, nutritional value and quantity that adequately covers the requirements of the ship and takes into account the differing cultural and religious backgrounds.
2. Seafarers on board a ship shall be provided with food free of charge during the period of engagement.
3. Seafarers employed as ships' cooks with responsibility for food preparation must be trained and qualified for their position on board ship.

STANDARD A3.2 – FOOD AND CATERING

1. Each Member shall adopt laws and regulations or other measures to provide minimum standards for the quantity and quality of food and drinking water and for the catering standards that apply to meals provided to seafarers on ships that fly its flag, and shall undertake educational activities to promote awareness and implementation of the standards referred to in this paragraph.
2. Each Member shall ensure that ships that fly its flag meet the following minimum standards:
 - (a) food and drinking water supplies, having regard to the number of seafarers on board, their religious requirements and cultural practices as they pertain to food, and the duration and nature of the voyage, shall be suitable in respect of quantity, nutritional value, quality and variety;
 - (b) the organization and equipment of the catering department shall be such as to permit the provision to the seafarers of adequate, varied and nutritious meals prepared and served in hygienic conditions; and
 - (c) catering staff shall be properly trained or instructed for their positions.
3. Shipowners shall ensure that seafarers who are engaged as ships' cooks are trained, qualified and found competent for the position in accordance with requirements set out in the laws and regulations of the Member concerned.
4. The requirements under paragraph 3 of this Standard shall include a completion of a training course approved or recognized by the competent authority, which covers practical cookery, food and personal hygiene, food storage, stock control, and environmental protection and catering health and safety.
5. On ships operating with a prescribed manning of less than ten which, by virtue of the size of the crew or the trading pattern, may not be required by the competent authority to carry a fully qualified cook, anyone processing food in the galley shall be trained or instructed in areas including food and personal hygiene as well as handling and storage of food on board ship.
6. In circumstances of exceptional necessity, the competent authority may issue a dispensation permitting a non-fully qualified cook to serve in a specified ship for a specified limited period, until the next convenient port of call or for a period not exceeding one month, provided that the person to whom the dispensation is issued is trained or instructed in areas including food and personal hygiene as well as handling and storage of food on board ship.

7. In accordance with the ongoing compliance procedures under Title 5, the competent authority shall require that frequent documented inspections be carried out on board ships, by or under the authority of the master, with respect to:

- (a) supplies of food and drinking water;
- (b) all spaces and equipment used for the storage and handling of food and drinking water; and
- (c) galley and other equipment for the preparation and service of meals.

8. No seafarer under the age of 18 shall be employed or engaged or work as a ship's cook.

GUIDELINE B3.2 – FOOD AND CATERING

GUIDELINE B3.2.1 – INSPECTION, EDUCATION, RESEARCH AND PUBLICATION

1. The competent authority should, in cooperation with other relevant agencies and organizations, collect up-to-date information on nutrition and on methods of purchasing, storing, preserving, cooking and serving food, with special reference to the requirements of catering on board a ship. This information should be made available, free of charge or at reasonable cost, to manufacturers of and traders in ships' food supplies and equipment, masters, stewards and cooks, and to shipowners' and seafarers' organizations concerned. Appropriate forms of publicity, such as manuals, brochures, posters, charts or advertisements in trade journals, should be used for this purpose.

2. The competent authority should issue recommendations to avoid wastage of food, facilitate the maintenance of a proper standard of hygiene, and ensure the maximum practicable convenience in working arrangements.

3. The competent authority should work with relevant agencies and organizations to develop educational materials and on-board information concerning methods of ensuring proper food supply and catering services.

4. The competent authority should work in close cooperation with the shipowners' and seafarers' organizations concerned and with national or local authorities dealing with questions of food and health, and may where necessary utilize the services of such authorities.

GUIDELINE B3.2.2 – SHIPS' COOKS

1. Seafarers should only be qualified as ships' cooks if they have:

- (a) served at sea for a minimum period to be prescribed by the competent authority, which could be varied to take into account existing relevant qualifications or experience;
- (b) passed an examination prescribed by the competent authority or passed an equivalent examination at an approved training course for cooks.

2. The prescribed examination may be conducted and certificates granted either directly by the competent authority or, subject to its control, by an approved school for the training of cooks.

3. The competent authority should provide for the recognition, where appropriate, of certificates of qualification as ships' cooks issued by other Members, which have ratified this Convention or the Certification of Ships' Cooks Convention, 1946 (No. 69), or other approved body.

Appendix II

Examples of steps taken by the national maritime authorities of MLC, 2006, ratifying countries towards the implementation of Regulation 3.2, Standard A3.2 and Guideline B3.2 (as of 19 March 2013) ¹

Antigua and Barbuda

Circular letter to: Companies having registered their ships under the flag of Antigua and Barbuda, West Indies. Ships registered under the flag of Antigua and Barbuda, West Indies. Authorized recognized organizations (ROs) (2012). See Appendix 1, Part 1(10). Available at: http://www.antiguamarine.com/Circulars%20OTHER%20CONVENTIONS/2012_circular_09-001-2012%20MLC.pdf.

Australia

Draft Marine Order 3 (2011). See section entitled “Marine Cook (Schedule 6)”. Available at: http://www.amsa.gov.au/Shipping_Safety/Marine_Orders/MO3_Consultation/Fact_Sheet_MO3_W hats%20_Changed.pdf.

Bahamas

Information Bulletin No. 146 (2013). Available at: <http://www.bahamasmaritime.com/downloads/Bulletins/146bulltn.pdf>.

Canada

Training course in marine cooking (Rev. 2007). Available at: <http://www.tc.gc.ca/publications/en/tp11130/pdf/hr/tp11130e.pdf>.

The examination and certification of seafarers. See Chapter 48. Available at: <http://www.tc.gc.ca/eng/marinesafety/tp-tp2293-menu-2254.htm>.

Cyprus

Circular No. 24/2012. Maritime Labour Convention, 2006 – Ratification and early implementation by Cyprus (2012). Available at: [http://www.mcw.gov.cy/mcw/dms/dms.nsf/All/17DF4373026A65E2C2257A17003C7118/\\$file/24-2012%20\(08-06-2012\).pdf?OpenElement](http://www.mcw.gov.cy/mcw/dms/dms.nsf/All/17DF4373026A65E2C2257A17003C7118/$file/24-2012%20(08-06-2012).pdf?OpenElement).

Circular No. 38/2012. Ships’ Cooks Certificates (2012). Available at: [http://www.mcw.gov.cy/mcw/dms/dms.nsf/All/4EEFA280C6CA130AC2257A5300340CF6/\\$file/38-2012%20\(07-08-2012\).pdf?OpenElement](http://www.mcw.gov.cy/mcw/dms/dms.nsf/All/4EEFA280C6CA130AC2257A5300340CF6/$file/38-2012%20(07-08-2012).pdf?OpenElement).

Denmark

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Liberia

Marine Notice. MLC-004. Rev. 02/11. Standards of accommodation, recreational facilities, food, water and catering under the Maritime Labour Convention, 2006 (MLC, 2006), (2011). Available at: <http://www.liscr.com/liscr/portals/0/MLC-004.pdf>.

¹ The experts may wish to discuss the usefulness of including these examples in the Guidelines and whether the list should be completed.

Marshall Islands

Marine Notice. No. 7-044-1. Rev. 4/13. Accommodations, recreational facilities, food, catering and water (2013). Available at: <http://www.register-iri.com/forms/upload/MN-7-044-1.pdf>.

Netherlands

Ministry of Infrastructure and Environment, Maritime Labour Convention, 2006 (MLC, 2006). Declaration of maritime labour compliance – Part 1. Available at: http://www.ilent.nl/onderwerpen/transport/koopvaardij/bemanning/ontwikkelingen/maritime_labour_convention/index.aspx.

Norway

Exemption certificate for chief cook, application form (2009). Available at: <http://www.sjofartsdir.no/skjema/exemption-certificate-for-chief-cook1/>.

Singapore

Maritime and Port Authority of Singapore: *Shipping Circular to Shipowners No. 3 of 2013: Maritime Labour Convention 2006 – Requirements pertaining to the training of cooks and the provision of food on ships* (2013). Available at: http://www.mpa.gov.sg/sites/circulars_and_notices/pdfs/shipping_circulars/sc_no_3_of_2013.pdf.

Information is needed from the following ratifying governments:

- Benin
- Bosnia and Herzegovina
- Bulgaria
- Croatia
- Fiji
- Finland
- France
- Gabon
- Greece
- Kiribati
- Latvia
- Luxembourg
- Malta
- Morocco
- Palau
- Panama
- Philippines
- Poland
- Russian Federation
- Serbia
- Saint Kitts and Nevis
- Saint Vincent and the Grenadines
- Spain
- Sweden
- Switzerland
- Togo
- Tuvalu