

**PORT SAFETY AND HEALTH
AUDIT MANUAL**

Prepared for the International Labour Office
by
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**INTERNATIONAL LABOUR OFFICE
SECTORAL ACTIVITIES DEPARTMENT**

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Table of contents

| | <i>Page</i> |
|---|-------------|
| FOREWORD | 3 |
| LIST OF ABBREVIATIONS AND ACRONYMS | 5 |
| REFERENCES | 7 |
| <u>PART 1</u> | |
| GENERAL INFORMATION ON APPLICABLE ILO CONVENTIONS, RECOMMENDATIONS, GUIDELINES AND REFERENCED ISO MANAGEMENT STANDARDS | |
| Section 1 | 9 |
| Section 2 | 23 |
| Section 3 | 29 |
| Section 4 | 39 |
| Section 5 | 43 |
| Section 6 | 57 |
| Section 7 | 61 |
| Section 8 | 67 |
| <u>PART 2</u> | |
| AUDIT CHECKLISTS | |
| Section 9 | 72 |
| Section 10 | 78 |
| Section 11 | 128 |
| Section 12 | 155 |

FOREWORD

Protection of the safety and health of workers should always have the highest priority and should therefore be part of any management system. This also applies to the port industry, since the millions of tons of cargoes transported by sea every year have to be handled in ports the world over.

It is estimated that at least 50 per cent of cargoes handled by port personnel are classified as “dangerous goods” because they have the potential to cause damage to human life, environment and/or property. But the other cargoes may also cause damage or injuries to persons or installations if they are not handled properly by qualified personnel and if international safety standards are not complied with.

The International Labour Organization has adopted three instruments which provide the standards to be observed by governments, employers and workers to ensure the safety and health of personnel working in the port environment. These are the:

- Occupational Safety and Health (Dock Work) Convention, 1979 (No. 152) (hereinafter **C152**);
- Occupational Safety and Health (Dock Work) Recommendation, 1979 (No. 160) (hereinafter **R160**); and
- *Safety and health in ports, ILO code of practice* (2005) (hereinafter **CoP**).

In 1998 the GEF/UNDP/IMO Regional Programme on Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) in Manila, Philippines, embarked on a project titled “Strengthening Chemical Spill Prevention and Response Levels in Selected Ports in the East Asian Region”.

The aim of PEMSEA's project is to develop and demonstrate a strategic management framework for the safe transport and handling of dangerous cargoes in two selected ports. An important component was the development of a generic port audit manual, which was published in December 2001. The two-volume manual aims to assist local auditors or port personnel in identifying the strengths, weaknesses and gaps in the existing port regulations/policies, practices in the handling and transport of dangerous cargoes, human resource development/training and emergency response planning.

Aware of the need for improvement in the application of the safety and health standards adopted by the International Labour Organization, the International Labour Office decided to cooperate with PEMSEA and to develop this *Port Safety and Health Audit Manual* to assist regulatory and port authorities, port managements, berth/terminal operators and other parties involved in port operations in assessing their compliance with ILO standards as well as their own policies and national requirements.

The aim of the present manual is to help appointed independent and trained auditors to:

- identify strengths, weaknesses and gaps in national and port regulations/policies with regard to safety and health, enforcement, monitoring and reporting, facilities and services, and human resource training and development;
- complete a comprehensive audit report, detailing any non-conformities detected; and
- prepare a proposed action plan for the management to rectify detected non-conformities.

To avoid duplication of work, this new manual concentrates on the safety and health aspects only and is to be considered a supplement to the *Port Safety Audit Manual* published by PEMSEA.

In particular, Volume 1 of PEMSEA's manual, entitled "Guidance for Auditors", should be consulted with regard to information on why audits should be carried out, the types of audit to be conducted, planning and conducting an audit, and qualifications required of an auditor.

For easier use, this manual has been divided into two parts:

Part 1 (Sections 1 to 8) provides general information on applicable ILO conventions, recommendations, guidelines and referenced ISO management standards. For easier reference, the text of ILO Convention No. 152 and of Recommendation No. 160 is reproduced in **sections 1 and 2**, respectively.

Since the **CoP** is a bulky document, only certain sections have been included in the manual. Auditors are therefore advised to obtain the full text of the instrument prior to preparing for an audit.

Part 2 (sections 9 to 12) provides an introduction to the checklists (**section 9**) and sample questions for use by auditors conducting a port safety and health audit; the questions can also be used as a checklist by the auditor to ensure that all requirements for the particular area to be audited have been properly covered.

The sample questions have been divided into three separate sections (**sections 10 to 12**), each of which is dedicated to one of the three ILO instruments (**C152, R160, CoP**).

It should be stressed that, when preparing for and carrying out an audit, the auditors must ensure that they are in the possession of the latest up-to-date version of the international instruments listed above, together with all applicable national legislation.

LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|-----------|---|
| CoP | <i>Safety and health in ports, ILO code of practice (2005)</i> |
| C152 | Occupational Safety and Health (Dock Work) Convention, 1979 (No. 152) |
| CTU | Cargo transport unit |
| EMS | Environmental Management System |
| ILO | International Labour Organization |
| IMDG Code | International Maritime Dangerous Goods Code (IMO) |
| IMO | International Maritime Organization |
| ISO | International Organization for Standardization |
| ISO/TC | International Organization for Standardization Technical Committee |
| OHSAS | Occupational Health and Safety Assessment Series |
| OSH | Occupational safety and health |
| OSH-MS | Occupational safety and health management system |
| PDP | Portworker Development Programme (ILO) |
| PEMSEA | GEF/UNDP/IMO Regional Programme on Partnerships in Environmental Management for the Seas of East Asia |
| QMS | Quality Management System |
| ro-ro | Roll-on-roll-off: ferry-type vessel onto which goods and containers can be driven, usually via a ramp |
| R160 | Occupational Safety and Health (Dock Work) Recommendation, 1979 (R160) |
| SOLAS | International Convention for the Safety of Life at Sea, 1974 (IMO) |

REFERENCES

The general information provided and the checklists are based on the following international conventions, recommendations, codes, guidelines and other texts:

1. Occupational Safety and Health (Dock Work) Convention, 1979 (C152), ILO
2. Occupational Safety and Health (Dock Work) Recommendation, 1979 (R160), ILO
3. Occupational Safety and Health Convention, 1981 (C155), ILO
4. Occupational Safety and Health Recommendation, 1981 (R164), ILO
5. Chemicals Convention, 1990 (C170), ILO
6. Chemicals Recommendation, 1990 (R177), ILO
7. *Safety and health in ports, ILO code of practice*, 2005
8. *Guidelines on Occupational Safety and Health Management Systems* (ILO-OSH 2001), SafeWork, ILO
9. *ILO Code of practice on HIV/AIDS and the world of work*, 2001
10. *Technical and ethical guidelines for workers' health surveillance* (OSH Series, No. 72), ILO, 1998
11. *Protection of workers' personal data: An ILO code of practice*, 1997
12. *Management of alcohol- and drug-related issues in the workplace: An ILO code of practice*, 1996
13. *Safety in the use of chemicals at work: An ILO code of practice*, 1993
14. ISO 9001: 2000 Quality Management Systems – Requirements
15. Implementation of ISO 14001:1996 Environmental management systems – Specification with guidance for use, BS EN ISO 14001:1996, BSP. ICS 13.020
16. *Port Safety Audit Manual*, Volume 1: Guidance for auditors, PEMSEA, December 2001 (ISBN 971-812-006-8)
17. "International Standards for Environmental Management Systems: ISO 14000", in *Canadian Environmental Protection*, August 1995 (by Isis Fredericks and David McCallum)
18. Occupational Health and Safety Assessment Series (OHSAS) 18001:1999 Occupational Health and Safety Management System – Specification

PART 1

GENERAL INFORMATION ON APPLICABLE ILO CONVENTIONS, RECOMMENDATIONS, GUIDELINES AND REFERENCED ISO MANAGEMENT STANDARDS

Section 1

C152 - Occupational Safety and Health (Dock Work) Convention, 1979

Convention concerning Occupational Safety and Health in Dock Work (Note: Date of coming into force: 5 December 1981)

The General Conference of the International Labour Organisation,

Having been convened at Geneva by the Governing Body of the International Labour Office, and having met in its Sixty-fifth Session on 6 June 1979, and

Noting the terms of existing international labour Conventions and Recommendations which are relevant and, in particular, the Marking of Weight (Packages Transported by Vessels) Convention, 1929, the Guarding of Machinery Convention, 1963, and the Working Environment (Air Pollution, Noise and Vibration) Convention, 1977, and

Having decided upon the adoption of certain proposals with regard to the revision of the Protection against Accidents (Dockers) Convention (Revised), 1932 (No. 32), which is the fourth item on the agenda of the session, and

Considering that these proposals must take the form of an international Convention,

adopts the twenty-fifth day of June of the year one thousand nine hundred and seventy-nine, the following Convention, which may be cited as the Occupational Safety and Health (Dock Work) Convention, 1979:

Part I. Scope and Definitions

Article 1

For the purpose of this Convention, the term **dock work** covers all and any part of the work of loading or unloading any ship as well as any work incidental thereto; the definition of such work shall be established by national law or practice. The organisations of employers and workers concerned shall be consulted on or otherwise participate in the establishment and revision of this definition.

Article 2

1. A Member may grant exemptions from or permit exceptions to the provisions of this Convention in respect of dock work at any place where the traffic is irregular and confined to small ships, as well as in respect of dock work in relation to fishing vessels or specified categories thereof, on condition that--

- (a) safe working conditions are maintained; and
- (b) the competent authority, after consultation with the organisations of employers and workers concerned, is satisfied that it is reasonable in all the circumstances that there be such exemptions or exceptions.

2. Particular requirements of Part III of this Convention may be varied if the competent authority is satisfied, after consultation with the organisations of employers and workers concerned, that the variations provide corresponding advantages and that the over-all protection afforded is not inferior to that which would result from the full application of the provisions of this Convention.

3. Any exemptions or exceptions made under paragraph 1 of this Article and any significant variations made under paragraph 2 of this Article, as well as the reasons therefor, shall be indicated in the reports on the application of the Convention submitted in pursuance of article 22 of the Constitution of the International Labour Organisation.

Article 3

For the purpose of this Convention--

- (a) the term **worker** means any person engaged in dock work;
- (b) the term **competent person** means a person possessing the knowledge and experience required for the performance of a specific duty or duties and acceptable as such to the competent authority;
- (c) the term **responsible person** means a person appointed by the employer, the master of the ship or the owner of the gear, as the case may be, to be responsible for the performance of a specific duty or duties and who has sufficient knowledge and experience and the requisite authority for the proper performance of the duty or duties;
- (d) the term **authorised person** means a person authorised by the employer, the master of the ship or a responsible person to undertake a specific task or tasks and possessing the necessary technical knowledge and experience;
- (e) the term **lifting appliance** covers all stationary or mobile cargo-handling appliances, including shore-based power-operated ramps, used on shore or on board ship for suspending, raising or lowering loads or moving them from one position to another while suspended or supported;
- (f) the term **loose gear** covers any gear by means of which a load can be attached to a lifting appliance but which does not form an integral part of the appliance or load;
- (g) the term **access** includes egress;
- (h) the term **ship** covers any kind of ship, vessel, barge, lighter or hovercraft, excluding ships of war.

Part II. General Provisions

Article 4

1. National laws or regulations shall prescribe that measures complying with Part III of this Convention be taken as regards dock work with a view to--

- (a) providing and maintaining workplaces, equipment and methods of work that are safe and without risk of injury to health;
- (b) providing and maintaining safe means of access to any workplace;
- (c) providing the information, training and supervision necessary to ensure the protection of workers against risks of accident or injury to health arising out of or in the course of their employment;

- (d) providing workers with any personal protective equipment and protective clothing and any life-saving appliances reasonably required where adequate protection against risks of accident or injury to health cannot be provided by other means;
 - (e) providing and maintaining suitable and adequate first-aid and rescue facilities;
 - (f) developing and establishing proper procedures to deal with any emergency situations which may arise.
2. The measures to be taken in pursuance of this Convention shall cover--
- (a) general requirements relating to the construction, equipping and maintenance of dock structures and other places at which dock work is carried out;
 - (b) fire and explosion prevention and protection;
 - (c) safe means of access to ships, holds, staging, equipment and lifting appliances;
 - (d) transport of workers;
 - (e) opening and closing of hatches, protection of hatchways and work in holds;
 - (f) construction, maintenance and use of lifting and other cargo-handling appliances;
 - (g) construction, maintenance and use of staging;
 - (h) rigging and use of ship's derricks;
 - (i) testing, examination, inspection and certification, as appropriate, of lifting appliances, of loose gear, including chains and ropes, and of slings and other lifting devices which form an integral part of the load;
 - (j) handling of different types of cargo;
 - (k) stacking and storage of goods;
 - (l) dangerous substances and other hazards in the working environment;
 - (m) personal protective equipment and protective clothing;
 - (n) sanitary and washing facilities and welfare amenities;
 - (o) medical supervision;
 - (p) first-aid and rescue facilities;
 - (q) safety and health organisation;
 - (r) training of workers;
 - (s) notification and investigation of occupational accidents and diseases.
3. The practical implementation of the requirements prescribed in pursuance of paragraph 1 of this Article shall be ensured or assisted by technical standards or codes of practice approved by the competent authority, or by other appropriate methods consistent with national practice and conditions.

Article 5

1. National laws or regulations shall make appropriate persons, whether employers, owners, masters or other persons, as the case may be, responsible for compliance with the measures referred to in Article 4, paragraph 1, of this Convention.
2. Whenever two or more employers undertake activities simultaneously at one workplace, they shall have the duty to collaborate in order to comply with the prescribed measures, without prejudice to the responsibility of each employer for the health and safety of his employees. In appropriate circumstances, the competent authority shall prescribe general procedures for this collaboration.

Article 6

1. There shall be arrangements under which workers--
 - (a) are required neither to interfere without due cause with the operation of, nor to misuse, any safety device or appliance provided for their own protection or the protection of others;
 - (b) take reasonable care for their own safety and that of other persons who may be affected by their acts or omissions at work;
 - (c) report forthwith to their immediate supervisor any situation which they have reason to believe could present a risk and which they cannot correct themselves, so that corrective measures can be taken.
2. Workers shall have a right at any workplace to participate in ensuring safe working to the extent of their control over the equipment and methods of work and to express views on the working procedures adopted as they affect safety. In so far as appropriate under national law and practice, where safety and health committees have been formed in accordance with Article 37 of this Convention, this right shall be exercised through these committees.

Article 7

1. In giving effect to the provisions of this Convention by national laws or regulations or other appropriate methods consistent with national practice and conditions, the competent authority shall act in consultation with the organisations of employers and workers concerned.
2. Provision shall be made for close collaboration between employers and workers or their representatives in the application of the measures referred to in Article 4, paragraph 1, of this Convention.

Part III. Technical Measures

Article 8

Any time that a workplace has become unsafe or there is a risk of injury to health, effective measures shall be taken (by fencing, flagging or other suitable means including, where necessary, cessation of work) to protect the workers until the place has been made safe again.

Article 9

1. All places where dock work is being carried out and any approaches thereto shall be suitably and adequately lighted.
2. Any obstacle liable to be dangerous to the movement of a lifting appliance, vehicle or person shall, if it cannot be removed for practical reasons, be suitably and conspicuously marked and, where necessary, adequately lighted.

Article 10

1. All surfaces used for vehicle traffic or for the stacking of goods or materials shall be suitable for the purpose and properly maintained.
2. Where goods or materials are stacked, stowed, unstacked or unstowed, the work shall be done in a safe and orderly manner having regard to the nature of the goods or materials and their packing.

Article 11

1. Passageways of adequate width shall be left to permit the safe use of vehicles and cargo-handling appliances.
2. Separate passageways for pedestrian use shall be provided where necessary and practicable; such passageways shall be of adequate width and, as far as is practicable, separated from passageways used by vehicles.

Article 12

Suitable and adequate means for fighting fire shall be provided and kept available for use where dock work is carried out.

Article 13

1. All dangerous parts of machinery shall be effectively guarded, unless they are in such a position or of such a construction as to be as safe as they would be if effectively guarded.
2. Effective measures shall be provided for promptly cutting off the power to any machinery in respect of which this is necessary, in an emergency.
3. When any cleaning, maintenance or repair work that would expose any person to danger has to be undertaken on machinery, the machinery shall be stopped before this work is begun and adequate measures shall be taken to ensure that the machinery cannot be restarted until the work has been completed: Provided that a responsible person may restart the machinery for the purpose of any testing or adjustment which cannot be carried out while the machinery is at rest.
4. Only an authorised person shall be permitted to--
 - (a) remove any guard where this is necessary for the purpose of the work being carried out;
 - (b) remove a safety device or make it inoperative for the purpose of cleaning, adjustment or repair.
5. If any guard is removed, adequate precautions shall be taken, and the guard shall be replaced as soon as practicable.
6. If any safety device is removed or made inoperative, the device shall be replaced or its operation restored as soon as practicable and measures shall be taken to ensure that the relevant equipment cannot be used or inadvertently started until the safety device has been replaced or its operation restored.

7. For the purpose of this Article, the term ***machinery*** includes any lifting appliance, mechanised hatch cover or power-driven equipment.

Article 14

All electrical equipment and installations shall be so constructed, installed, operated and maintained as to prevent danger and shall conform to such standards as have been recognised by the competent authority.

Article 15

When a ship is being loaded or unloaded alongside a quay or another ship, adequate and safe means of access to the ship, properly installed and secured, shall be provided and kept available.

Article 16

1. When workers have to be transported to or from a ship or other place by water, adequate measures shall be taken to ensure their safe embarking, transport and disembarking; the conditions to be complied with by the vessels used for this purpose shall be specified.
2. When workers have to be transported to or from a workplace on land, means of transport provided by the employer shall be safe.

Article 17

1. Access to a ship's hold or cargo deck shall be by means of--
 - (a) a fixed stairway or, where this is not practicable, a fixed ladder or cleats or cups of suitable dimensions, of adequate strength and proper construction; or
 - (b) by other means acceptable to the competent authority.
2. So far as is reasonably practicable, the means of access specified in this Article shall be separate from the hatchway opening.
3. Workers shall not use, or be required to use, any other means of access to a ship's hold or cargo deck than those specified in this Article.

Article 18

1. No hatch cover or beam shall be used unless it is of sound construction, of adequate strength for the use to which it is to be put and properly maintained.
2. Hatch covers handled with the aid of a lifting appliance shall be fitted with readily accessible and suitable attachments for securing the slings or other lifting gear.
3. Where hatch covers and beams are not interchangeable, they shall be kept plainly marked to indicate the hatch to which they belong and their position therein.
4. Only an authorised person (whenever practicable a member of the ship's crew) shall be permitted to open or close power-operated hatch covers; the hatch covers shall not be opened or closed while any person is liable to be injured by the operation of the covers.

5. The provisions of paragraph 4 of this Article shall apply, mutatis mutandis, to power-operated ship's equipment such as a door in the hull of a ship, a ramp, a retractable car deck or similar equipment.

Article 19

1. Adequate measures shall be taken to protect any opening in or on a deck where workers are required to work, through which opening workers or vehicles are liable to fall.

2. Every hatchway not fitted with a coaming of adequate height and strength shall be closed or its guard replaced when the hatchway is no longer in use, except during short interruptions of work, and a responsible person shall be charged with ensuring that these measures are carried out.

Article 20

1. All necessary measures shall be taken to ensure the safety of workers required to be in the hold or on a cargo deck of a ship when power vehicles operate in that hold or loading or unloading operations are taking place with the aid of power-operated appliances.

2. Hatch covers and beams shall not be removed or replaced while work is in progress in the hold under the hatchway. Before loading or unloading takes place, any hatch cover or beam that is not adequately secured against displacement shall be removed.

3. Adequate ventilation shall be provided in the hold or on a cargo deck by the circulation of fresh air to prevent risks of injury to health arising from the fumes emitted by internal combustion engines or from other sources.

4. Adequate arrangements, including safe means of escape, shall be made for the safety of persons when dry bulk cargo is being loaded or unloaded in any hold or 'tween deck or when a worker is required to work in a bin or hopper on board ship.

Article 21

Every lifting appliance, every item of loose gear and every sling or lifting device forming an integral part of a load shall be--

- (a) of good design and construction, of adequate strength for the purpose for which it is used, maintained in good repair and working order and, in the case of a lifting appliance in respect of which this is necessary, properly installed;
- (b) used in a safe and proper manner and, in particular, shall not be loaded beyond its safe working load or loads, except for testing purposes as specified and under the direction of a competent person.

Article 22

1. Every lifting appliance and every item of loose gear shall be tested in accordance with national laws or regulations by a competent person before being put into use for the first time and after any substantial alteration or repair to any part liable to affect its safety.

2. Lifting appliances forming part of a ship's equipment shall be retested at least once in every five years.

3. Shore-based lifting appliances shall be retested at such times as prescribed by the competent authority.

4. Upon the completion of every test of a lifting appliance or item of loose gear carried out in accordance with this Article, the appliance or gear shall be thoroughly examined and certified by the person carrying out the test.

Article 23

1. In addition to the requirements of Article 22, every lifting appliance and every item of loose gear shall be periodically thoroughly examined and certified by a competent person. Such examinations shall take place at least once in every 12 months.

2. For the purpose of paragraph 4 of Article 22 and of paragraph 1 of this Article, a thorough examination means a detailed visual examination by a competent person, supplemented if necessary by other suitable means or measures in order to arrive at a reliable conclusion as to the safety of the appliance or item of loose gear examined.

Article 24

1. Every item of loose gear shall be inspected regularly before use. Expendable or disposable slings shall not be reused. In the case of pre-slung cargoes, the slings shall be inspected as frequently as is reasonably practicable.

2. For the purpose of paragraph 1 of this Article, an inspection means a visual inspection by a responsible person carried out to decide whether, so far as can be ascertained in such manner, the gear or sling is safe for continued use.

Article 25

1. Such duly authenticated records as will provide prima facie evidence of the safe condition of the lifting appliances and items of loose gear concerned shall be kept, on shore or on the ship as the case may be; they shall specify the safe working load and the dates and results of the tests, thorough examinations and inspections referred to in Articles 22, 23 and 24 of this Convention: Provided that in the case of inspections referred to in paragraph 1 of Article 24 of this Convention, a record need only be made where the inspection discloses a defect.

2. A register of the lifting appliances and items of loose gear shall be kept in a form prescribed by the competent authority, account being taken of the model recommended by the International Labour Office.

3. The register shall comprise certificates granted or recognised as valid by the competent authority, or certified true copies of the said certificates, in a form prescribed by the competent authority, account being taken of the models recommended by the International Labour Office in respect of the testing, thorough examination and inspection, as the case may be, of lifting appliances and items of loose gear.

Article 26

1. With a view to ensuring the mutual recognition of arrangements made by Members which have ratified this Convention for the testing, thorough examination, inspection and certification of lifting appliances and items of loose gear forming part of a ship's equipment and of the records relating thereto--

- (a) the competent authority of each Member which has ratified the Convention shall appoint or otherwise recognise competent persons or national or international organisations to carry out tests and/or thorough examinations and related functions, under conditions that ensure that the continuance of appointment or recognition depends upon satisfactory performance;
 - (b) Members which have ratified the Convention shall accept or recognise those appointed or otherwise recognised pursuant to subparagraph (a) of this paragraph, or shall enter into reciprocal arrangements with regard to such acceptance or recognition; in either case, acceptance or recognition shall be under conditions that make their continuance dependent upon satisfactory performance.
2. No lifting appliance, loose gear or other cargo-handling appliances shall be used if--
- (a) the competent authority is not satisfied by reference to a certificate of test or examination or to an authenticated record, as the case may be, that the necessary test, examination or inspection has been carried out in accordance with the provisions of this Convention; or
 - (b) in the view of the competent authority, the appliance or gear is not safe for use.
3. Paragraph 2 of this Article shall not be so applied as to cause delay in loading or unloading a ship where equipment satisfactory to the competent authority is used.

Article 27

1. Every lifting appliance (other than a ship's derrick) having a single safe working load and every item of loose gear shall be clearly marked with its safe working load by stamping or, where this is impracticable, by other suitable means.
2. Every lifting appliance (other than a ship's derrick) having more than one safe working load shall be fitted with effective means of enabling the driver to determine the safe working load under each condition of use.
3. Every ship's derrick (other than a derrick crane) shall be clearly marked with the safe working loads applying when the derrick is used--
 - (a) in single purchase;
 - (b) with a lower cargo block;
 - (c) in union purchase in all possible block positions.

Article 28

Every ship shall carry rigging plans and any other relevant information necessary to permit the safe rigging of its derricks and accessory gear.

Article 29

Pallets and similar devices for containing or supporting loads shall be of sound construction, of adequate strength and free from visible defects liable to affect their safe use.

Article 30

Loads shall not be raised or lowered unless slung or otherwise attached to the lifting appliance in a safe manner.

Article 31

1. Every freight container terminal shall be so laid out and operated as to ensure so far as is reasonably practicable the safety of the workers.
2. In the case of ships carrying containers, means shall be provided for ensuring the safety of workers lashing or unlashng the containers.

Article 32

1. Any dangerous cargo shall be packed, marked and labelled, handled, stored and stowed in accordance with the relevant requirements of international regulations applying to the transport of dangerous goods by water and those dealing specifically with the handling of dangerous goods in ports.
2. Dangerous substances shall not be handled, stored or stowed unless they are packed and marked and labelled in compliance with international regulations for the transport of such substances.
3. If receptacles or containers of dangerous substances are broken or damaged to a dangerous extent, dock work, other than that necessary to eliminate danger, shall be stopped in the area concerned and the workers removed to a safe place until the danger has been eliminated.
4. Adequate measures shall be taken to prevent exposure of workers to toxic or harmful substances or agents, or oxygen-deficient or flammable atmospheres.
5. Where workers are required to enter any confined space in which toxic or harmful substances are liable to be present or in which there is liable to be an oxygen deficiency, adequate measures shall be taken to prevent accidents or injury to health.

Article 33

Suitable precautions shall be taken to protect workers against the harmful effects of excessive noise at the workplace.

Article 34

1. Where adequate protection against risks of accident or injury to health cannot be ensured by other means, workers shall be provided with and shall be required to make proper use of such personal protective equipment and protective clothing as is reasonably required for the performance of their work.
2. Workers shall be required to take care of that personal protective equipment and protective clothing.
3. Personal protective equipment and protective clothing shall be properly maintained by the employer.

Article 35

In case of accident, adequate facilities, including trained personnel, shall be readily available for the rescue of any person in danger, for the provision of first-aid and for the removal of injured persons in so far as is reasonably practicable without further endangering them.

Article 36

1. Each Member shall determine, by national laws or regulations or other appropriate methods consistent with national practice and conditions, and after consultation with the organisations of employers and workers concerned--

- (a) for which risks inherent in the work there is to be an initial medical examination or a periodical medical examination, or both;
- (b) with due regard to the nature and degree of the risks and the particular circumstances, the maximum intervals at which periodical medical examinations are to be carried out;
- (c) in the case of workers exposed to special occupational health hazards, the range of special investigations deemed necessary;
- (d) appropriate measures for the provision of occupational health services for workers.

2. All medical examinations and investigations carried out in pursuance of paragraph 1 of this Article shall be free of cost to the worker.

3. The records of the medical examinations and the investigations shall be confidential.

Article 37

1. Safety and health committees including employers' and workers' representatives shall be formed at every port where there is a significant number of workers. Such committees shall also be formed at other ports as necessary.

2. The establishment, composition and functions of such committees shall be determined by national laws or regulations or other appropriate methods consistent with national practice and conditions, after consultation with the organisations of employers and workers concerned, and in the light of local circumstances.

Article 38

1. No worker shall be employed in dock work unless he has been given adequate instruction or training as to the potential risks attaching to his work and the main precautions to be taken.

2. A lifting appliance or other cargo-handling appliance shall be operated only by a person who is at least 18 years of age and who possesses the necessary aptitudes and experience or a person under training who is properly supervised.

Article 39

To assist in the prevention of occupational accidents and diseases, measures shall be taken to ensure that they are reported to the competent authority and, where necessary, investigated.

Article 40

In accordance with national laws or regulations or national practice, a sufficient number of adequate and suitable sanitary and washing facilities shall be provided and properly maintained at each dock, wherever practicable within a reasonable distance of the workplace.

Part IV. Implementation

Article 41

Each Member which ratifies this Convention shall--

- (a) specify the duties in respect of occupational safety and health of persons and bodies concerned with dock work;
- (b) take necessary measures, including the provision of appropriate penalties, to enforce the provisions of the Convention;
- (c) provide appropriate inspection services to supervise the application of the measures to be taken in pursuance of the Convention, or satisfy itself that appropriate inspection is carried out.

Article 42

1. National laws or regulations shall prescribe the time-limits within which the provisions of this Convention shall apply in respect of--

- (a) the construction or equipping of a ship;
- (b) the construction or equipping of any shore-based lifting appliance or other cargo-handling appliance;
- (c) the construction of any item of loose gear.

2. The time-limits prescribed pursuant to paragraph 1 of this Article shall not exceed four years from the date of ratification of the Convention.

PART V. Final Provisions

Article 43

This Convention revises the Protection against Accidents (Dockers) Convention, 1929, and the Protection against Accidents (Dockers) Convention (Revised), 1932.

Article 44

The formal ratifications of this Convention shall be communicated to the Director-General of the International Labour Office for registration.

Article 45

1. This Convention shall be binding only upon those Members of the International Labour Organisation whose ratifications have been registered with the Director-General.
2. It shall come into force twelve months after the date on which the ratifications of two Members have been registered with the Director-General.
3. Thereafter, this Convention shall come into force for any Member twelve months after the date on which its ratification has been registered.

Article 46

1. A Member which has ratified this Convention may denounce it after the expiration of ten years from the date on which the Convention first comes into force, by an act communicated to the Director-General of the International Labour Office for registration. Such denunciation shall not take effect until one year after the date on which it is registered.
2. Each Member which has ratified this Convention and which does not, within the year following the expiration of the period of ten years mentioned in the preceding paragraph, exercise the right of denunciation provided for in this Article, will be bound for another period of ten years and, thereafter, may denounce this Convention at the expiration of each period of ten years under the terms provided for in this Article.

Article 47

1. The Director-General of the International Labour Office shall notify all Members of the International Labour Organisation of the registration of all ratifications and denunciations communicated to him by the Members of the Organisation.
2. When notifying the Members of the Organisation of the registration of the second ratification communicated to him, the Director-General shall draw the attention of the Members of the Organisation to the date upon which the Convention will come into force.

Article 48

The Director-General of the International Labour Office shall communicate to the Secretary-General of the United Nations for registration in accordance with Article 102 of the Charter of the United Nations full particulars of all ratifications and acts of denunciation registered by him in accordance with the provisions of the preceding Articles.

Article 49

At such times as it may consider necessary the Governing Body of the International Labour Office shall present to the General Conference a report on the working of this Convention and shall examine the desirability of placing on the agenda of the Conference the question of its revision in whole or in part.

Article 50

1. Should the Conference adopt a new Convention revising this Convention in whole or in part, then, unless the new Convention otherwise provides:

- a) the ratification by a Member of the new revising Convention shall ipso jure involve the immediate denunciation of this Convention, notwithstanding the provisions of Article 46 above, if and when the new revising Convention shall have come into force;
- b) as from the date when the new revising Convention comes into force this Convention shall cease to be open to ratification by the Members.

2. This Convention shall in any case remain in force in its actual form and content for those Members which have ratified it but have not ratified the revising Convention.

Article 51

The English and French versions of the text of this Convention are equally authoritative.

Cross references

Conventions: C027 Marking of Weight (Packages Transported by Vessels) Convention, 1929

Conventions: C119 Guarding of Machinery Convention, 1963

Conventions: C148 Working Environment (Air Pollution, Noise and Vibration) Convention, 1977

Revised: C032 This Convention revises Protection against Accidents (Dockers) Convention (Revised), 1932

Constitution: 22: article 22 of the Constitution of the International Labour Organisation

Revised: C028 This Convention revises the Protection against Accidents (Dockers) Convention, 1929

Section 2

R160 - Occupational Safety and Health (Dock Work) Recommendation, 1979

Recommendation concerning Occupational Safety and Health in Dock Work Recommendation: R160

The General Conference of the International Labour Organisation,

Having been convened at Geneva by the Governing Body of the International Labour Office, and having met in its Sixty-fifth Session on 6 June 1979, and

Having decided upon the adoption of certain proposals with regard to the revision of the Protection against Accidents (Dockers) Convention (Revised), 1932 (No. 32), which is the fourth item on the agenda of the session, and

Having determined that these proposals shall take the form of a Recommendation supplementing the Occupational Safety and Health (Dock Work) Convention, 1979,

adopts this twenty-fifth day of June of the year one thousand nine hundred and seventy-nine, the following Recommendation, which may be cited as the Occupational Safety and Health (Dock Work) Recommendation, 1979:

I. Scope and Definitions

1. For the purpose of this Recommendation, the term **dock work** covers all and any part of the work of loading or unloading any ship as well as any work incidental thereto; the definition of such work should be established by national law or practice. The organisations of employers and workers concerned should be consulted on or otherwise participate in the establishment and revision of this definition.

2. For the purpose of this Recommendation--

- (a) the term **worker** means any person engaged in dock work;
- (b) the term **competent person** means a person possessing the knowledge and experience required for the performance of a specific duty or duties and acceptable as such to the competent authority;
- (c) the term **responsible person** means a person appointed by the employer, the master of the ship or the owner of the gear, as the case may be, to be responsible for the performance of a specific duty or duties and who has sufficient knowledge and experience and the requisite authority for the proper performance of the duty or duties;
- (d) the term **authorised person** means a person authorised by the employer, the master of the ship or a responsible person to undertake a specific task or tasks and possessing the necessary technical knowledge and experience;

- (e) the term **lifting appliance** covers all stationary or mobile cargo-handling appliances, including shore-based power-operated ramps, used on shore or on board ship for suspending, raising or lowering loads or moving them from one position to another while suspended or supported;
- (f) the term **loose gear** covers any gear by means of which a load can be attached to a lifting appliance but which does not form an integral part of the appliance or load;
- (g) the term **access** includes egress;
- (h) the term **ship** covers any kind of ship, vessel, barge, lighter or hovercraft, excluding ships of war.

II. General Provisions

3. In giving effect to the Occupational Safety and Health (Dock Work) Convention, 1979, each Member should take into consideration

- (a) the provisions of the relevant conventions, regulations and recommendations adopted under the auspices of the Inter-Governmental Maritime Consultative Organisation and, in particular, those of the International Convention for Safe Containers, 1972, as at any time revised;
- (b) the relevant standards adopted by recognised international organisations dealing with matters of standardisation;
- (c) the relevant provisions of conventions, regulations and recommendations concerning inland navigation adopted under the auspices of international organisations.

4. In developing measures under Article 4, paragraph 1, of the Occupational Safety and Health (Dock Work) Convention, 1979, each Member should take into consideration the technical suggestions in the latest edition of the Code of Practice on safety and health in dock work published by the International Labour Office in so far as they appear to be appropriate and relevant in the light of national circumstances and conditions.

5. In taking the measures referred to in Article 4, paragraph 1, of the Occupational Safety and Health (Dock Work) Convention, 1979, each Member should take account of the provisions of Part III of this Recommendation, which are supplementary to those set out in Part III of that Convention.

6. With a view to preventing occupational accidents and diseases, workers should be given adequate instruction or training in safe working procedures, occupational hygiene and, where necessary, first-aid procedures and the safe operation of cargo-handling appliances.

III. Technical Measures

7.

(1) All passageways should be--

(a) plainly marked;

(b) so far as is reasonably practicable, kept free of any obstruction not related to the work in progress.

(2) Passageways used for vehicles should, so far as is reasonably practicable, be one-way in operation.

8.

(1) Wherever reasonably practicable, means of access should be so placed that no suspended loads pass over them.

(2) Wherever necessary, the means of access to a ship should be fitted with a safety net properly secured so as to prevent workers from falling into the water between the ship's side and the adjacent quay.

9. Junction plates used with ramps on roll-on/roll-off ships should be so designed and used as to be safe.

10.

(1) Every hatchway on the weatherdeck not protected by means of a coaming of adequate height and strength should be effectively guarded or covered.

(2) Every 'tween-deck hatchway should, when it is open, be effectively guarded to an adequate height.

(3) Guards may be temporarily removed on any side of a hatchway where this is necessary for loading or unloading goods.

(4) If, for technical reasons, the provisions of subparagraphs (1) and (2) of this Paragraph cannot be implemented, an authorised person should ensure the safety of the workers.

(5) Deck cargoes should not be placed on nor vehicles pass over any hatch cover which is not of adequate strength for that purpose.

11. When necessary, due to the size of the hold, provision should be made for more than one means of escape.

12. Operators of lifting appliances should check the operation of their safety devices before commencing work.

13.

(1) Petrol-driven vehicles or lifting appliances should not be refuelled in the hold of a ship and vehicles or lifting appliances driven by other fuels should only be refuelled in the hold of a ship under conditions which, so far as is reasonably practicable, ensure the safety of the workers.

(2) If reasonably practicable, preference should be given to the use in the hold of engines which do not pollute the air.

14. As far as is reasonably practicable, workers should not be required to work in the part of a hold where a trimming machine or grab is operating.

15. No new part of a lifting appliance or item of loose gear should be manufactured of wrought iron.

16. No heat treatment should be applied to any item of loose gear unless the treatment is carried out under the supervision of a competent person and in accordance with his instructions.

17. Suitable and adequate dunnage should be used if necessary to protect slings of pre-slung cargoes.

18. Slings which have not been approved or inspected should not under any circumstances be used for pre-slinging.

19. Every lifting beam, lifting frame, vacuum lifting or magnetic lifting device which does not form an integral part of a lifting appliance and every other item of loose gear weighing more than 100 kg should be clearly marked with its own weight.

20. Disposable pallets and similar disposable devices should--

- (a) be clearly marked or labelled to indicate that they are disposable;
- (b) not be used unless they are free from defects liable to affect their safe use; and
- (c) not be re-used.

21. Loads secured together by means of bailing wires or straps should not be raised or lowered by means of hooks or other devices inserted in the wires or straps unless the wires or straps are of adequate strength.

22. Every reasonable measure should be taken to minimise risks of accident when work has to be carried out on top of freight containers.

23.

(1) Dangerous substances should only be handled, stored or stowed under the supervision of a responsible person.

(2) When dangerous substances are to be handled, stored or stowed, the workers concerned should be given adequate information as to the special precautions to be observed, including action to be taken in the event of a spillage or accidental escape from containment.

24. First-aid personnel should be proficient in the use of appropriate resuscitation techniques and rescue work.

25. Lifting appliances, where necessary and reasonably practicable, should be fitted with a means of emergency escape from the driver's cabin. There should be arrangements for the removal of an injured or ill driver without further endangering him.

26.

(1) The results of the medical examinations and investigations referred to in Article 36 of the Occupational Safety and Health (Dock Work) Convention, 1979, should be communicated to the worker concerned.

(2) The employer should be informed whether the worker is fit for the work to be carried out and whether he may constitute a risk to other persons, on the condition that, subject to Article 39 of the Convention, the confidential character of the information is respected.

27. The facilities provided in pursuance of Article 40 of the Occupational Safety and Health (Dock Work) Convention, 1979, should, so far as is reasonably practicable, include changing rooms.

Cross references

Conventions: C032 Protection against Accidents (Dockers) Convention (Revised), 1932

Conventions: C152 Occupational Safety and Health (Dock Work) Convention, 1979

Section 3

Introduction to *Safety and health in ports, ILO code of practice (2005)*

3.1 ***Safety and health in ports, ILO code of practice*** (hereinafter "**CoP**") replaces two earlier ILO publications, namely:

- *Guide to safety and health in dock work* (1976); and
- *Safety and health in dock work, An ILO code of practice* (second edition, 1977).

3.2 The **CoP** is based on the requirements of the following ILO instruments:

- Occupational Safety and Health (Dock Work) Convention, 1979 (No. 152); and
- Occupational Safety and Health (Dock Work) Recommendation, 1979 (No. 160).

3.3 In revising the previous Code, existing safety and health publications were reviewed to identify information that had become obsolete as well as new subject matter (e.g. new activities and practices) to be included in the new Code.

3.4 In this respect, the vast practical experience brought by the team of experts involved in the revision played an invaluable and highly effective role.

3.5 The **CoP** was adopted by a Meeting of Experts held in Geneva from 8 to 17 December 2003. The Governing Body of the ILO, at its 287th Session in June 2003, approved the composition of the Meeting of Experts. In accordance with this decision, the meeting was attended by 12 experts nominated by Governments (Australia, Brazil, Canada, China, Egypt, Germany, Nigeria, Panama, Philippines, Spain, United Kingdom, United States), 12 experts nominated by the Employers and 12 experts nominated by the Workers. Expert observers from other governments and observers from a number of intergovernmental and non-governmental organizations also attended.

3.6 The contents of the **CoP** are as follows:

Preface

List of participants

List of abbreviations and acronyms

Section 1 – Introduction, scope, implementation and definitions

1.1 Introduction

- 1.1.1. General overview of the port industry
- 1.1.2. Reasons for the publication of this code

1.2 Scope

1.3 Implementation

1.4 Innovations in ports

1.5 Definitions

Section 2 – General provisions**2.1 Responsibilities**

- 2.1.1. General requirements
- 2.1.2. Competent authorities
- 2.1.3. Port employers
- 2.1.4. Contractors and labour or service providers
- 2.1.5. Ships' officers
- 2.1.6. Management
- 2.1.7. Supervisors
- 2.1.8. Portworkers
- 2.1.9. Self-employed persons
- 2.1.10. Safety and health advisers
- 2.1.11. Other persons at work
- 2.1.12. Passengers and other non-workers

2.2 Management of safety and health

- 2.2.1. General requirements
- 2.2.2. Risk assessment systems
- 2.2.3. Safety and health management systems

2.3 Safe systems of work**2.4 Organization**

- 2.4.1. Organization for safety and health in ports
- 2.4.2. Safety and health committees
- 2.4.3. Safety representatives

2.5 Reporting and investigation of accidents

- 2.5.1. In-house reporting of accidents
- 2.5.2. Statutory reporting of accidents
- 2.5.3. Investigation of accidents

2.6 Selection and training

- 2.6.1. Selection of portworkers
- 2.6.2. Training needs
- 2.6.3. Induction training
- 2.6.4. Job-specific training
- 2.6.5. Training methods
- 2.6.6. Evaluation of training

2.7 Information for portworkers**2.8 Special facilities for disabled persons****Section 3 – Port infrastructure, plant and equipment****3.1 General provisions**

- 3.1.1. Separation of people and vehicles
- 3.1.2. Surfaces
- 3.1.3. Lighting
- 3.1.4. Fire precautions
 - 3.1.4.1. General requirements
 - 3.1.4.2. Fire protection
 - 3.1.4.3. Fire alarms
 - 3.1.4.4. Fire-fighting equipment
- 3.1.5. Means of escape in case of fire

3.2 Traffic routes

- 3.2.1. Roadways
- 3.2.2. Walkways
- 3.2.3. Other matters

3.3 Cargo-handling areas

- 3.3.1. Layout
- 3.3.2. Edge protection
- 3.3.3. Quay edges
- 3.3.4. Fencing
- 3.3.5. Quayside ladders
- 3.3.6. Life-saving equipment

3.4 Shore-side access to ships

- 3.4.1. General requirements
- 3.4.2. Shore ramps and passenger walkways
- 3.4.3. Landing stages
- 3.4.4. Steps and stairways
- 3.4.5. Quayside ladders

3.5 Access to terminal buildings, structures and plant

- 3.5.1. General requirements
- 3.5.2. Stairways and steps
- 3.5.3. Fixed ladders and walkways
- 3.5.4. Portable ladders
- 3.5.5. Rope ladders
- 3.5.6. Lifts

3.6 Terminal plant and equipment

- 3.6.1. General requirements
- 3.6.2. Mobile equipment
 - 3.6.2.1. Internal movement vehicles
 - 3.6.2.2. Visual display screens in vehicles
 - 3.6.2.3. Skeletal trailers
 - 3.6.2.4. Trestles
 - 3.6.2.5. Goosenecks
 - 3.6.2.6. Roll trailers and cassettes
 - 3.6.2.7. Hand trucks and trolleys
 - 3.6.2.8. Cargo platforms
 - 3.6.2.9. Access or lashing cages
- 3.6.3. Conveyors
- 3.6.4. Electrical equipment
- 3.6.5. Hand tools
- 3.6.6. Machinery
- 3.6.7. Mooring dolphins and bollards
- 3.6.8. Vehicle sheeting facilities
- 3.6.9. Other equipment

3.7 Bulk cargo terminals

- 3.7.1. Bulk solids
- 3.7.2. Bulk liquids and gases

3.8 Container terminals

- 3.8.1. Definitions
- 3.8.2. General requirements
- 3.8.3. Segregation
- 3.8.4. Reception facilities
- 3.8.5. Control rooms
- 3.8.6. Grids

- 3.9 Passenger terminals**
- 3.10 Roll-on-roll-off (ro-ro) terminals**
- 3.11 Warehouses and transit sheds**
- 3.12 Gatehouses and quay offices**
 - 3.12.1. Gatehouses
 - 3.12.2. Quay offices
- 3.13 Port railways**
- 3.14 Tenders and workboats**
- 3.15 Personal protective equipment**
 - 3.15.1. General requirements
 - 3.15.2. Storage and maintenance of personal protective equipment

Section 4 – Lifting appliances and loose gear

- 4.1 Basic requirements**
 - 4.1.1. General requirements
 - 4.1.2. Brakes
 - 4.1.3. Electrical supply
 - 4.1.4. Safe working load (SWL)
 - 4.1.5. Controls
 - 4.1.6. Limiting devices
 - 4.1.7. Lubrication
 - 4.1.8. Operator's cab
 - 4.1.9. Overhauling weight
 - 4.1.10. Swivels
 - 4.1.11. Tyres
 - 4.1.12. Access
 - 4.1.13. Winch and rope drums, leads and anchorages
 - 4.1.14. Maintenance
- 4.2 Testing, thorough examination, marking and inspection of lifting appliances and loose gear**
 - 4.2.1. Introduction
 - 4.2.2. Testing of lifting appliances
 - 4.2.3. Testing of loose gear
 - 4.2.4. Thorough examination
 - 4.2.5. Test and examination reports, registers and certificates
 - 4.2.6. Marking
 - 4.2.7. Inspection
- 4.3 Lifting appliances**
 - 4.3.1. Ships' lifting appliances
 - 4.3.2. Shore cranes
 - 4.3.3. Lift trucks
- 4.4 Loose gear**
 - 4.4.1. General requirements
 - 4.4.2. Chains and chain slings
 - 4.4.3. Wire ropes and slings
 - 4.4.4. Fibre ropes and slings
 - 4.4.5. Blocks
 - 4.4.6. Other loose gear
- 4.5 Lifting devices forming an integral part of a load**
 - 4.5.1. General requirements
 - 4.5.2. Flexible intermediate bulk containers (FIBCs)
 - 4.5.3. Pallets

Section 5 – Safe use of lifting appliances and loose gear**5.1 Basic requirements**

- 5.1.1. General requirements
- 5.1.2. Planning and control of lifting operations
- 5.1.3. Training
- 5.1.4. Inspection
 - 5.1.4.1. General inspection requirements
 - 5.1.4.2. Daily checks
 - 5.1.4.3. Weekly checks
 - 5.1.4.4. Blocks
 - 5.1.4.5. Equipment not in regular use
- 5.1.5. Weather conditions

5.2 Lifting appliances

- 5.2.1. General requirements
 - 5.2.1.1. Safe use
 - 5.2.1.2. Care and maintenance
- 5.2.2. Ships' lifting appliances
 - 5.2.2.1. Ships' derricks
 - 5.2.2.2. Use of coupled derricks (union purchase)
 - 5.2.2.3. Ships' cargo lifts
 - 5.2.2.4. Ships' mobile lifting appliances
 - 5.2.2.5. Cranes temporarily installed on ships
- 5.2.3. Shore cranes
- 5.2.4. Lift trucks
 - 5.2.4.1. General requirements
 - 5.2.4.2. Safe use
 - 5.2.4.3. Reach trucks
 - 5.2.4.4. Side-loading forklift trucks
 - 5.2.4.5. Batteries
 - 5.2.4.6. Pedestrian-controlled pallet trucks
- 5.2.5. Other lifting appliances
- 5.2.6. Use of more than one lifting appliance to lift a load

5.3 Loose gear

- 5.3.1. Safe working load
- 5.3.2. Safe use
- 5.3.3. Ropes and slings
 - 5.3.3.1. Use
 - 5.3.3.2. Storage and maintenance
 - 5.3.3.3. Removal from service
- 5.3.4. Other loose gear

5.4 Signallers**Section 6 – Operations on shore****6.1 General provisions**

- 6.1.1. General requirements
- 6.1.2. Access arrangements
- 6.1.3. Housekeeping and cleanliness
- 6.1.4. Manual handling
- 6.1.5. Cargo in transit
- 6.1.6. Operational maintenance
- 6.1.7. Hot work
- 6.1.8. Use of personal protective equipment (PPE)

6.2 Cargo packaging

6.3 Container operations

- 6.3.1. Control of container operations
 - 6.3.1.1. General requirements
 - 6.3.1.2. Straddle carrier exchange operations
 - 6.3.1.3. RMG and RTG exchange operations
 - 6.3.1.4. Entry to stacking areas
 - 6.3.1.5. Emergency procedures
- 6.3.2. Container-stacking areas
- 6.3.3. Container handling and lifting
- 6.3.4. Changing spreader frames
- 6.3.5. Access to tops of containers
- 6.3.6. Operations inside containers
 - 6.3.6.1. Opening containers
 - 6.3.6.2. Customs inspections
 - 6.3.6.3. Packing and stripping of containers and other cargo transport units
 - 6.3.6.4. Cleaning of containers
- 6.3.7. In-transit repairs to containers

6.4 Conveyors**6.5 Electrical equipment****6.6 Forest products**

- 6.6.1. General requirements
- 6.6.2. Storage
- 6.6.3. Handling

6.7 Gatehouses and reception buildings**6.8 General cargo operations****6.9 Machinery (general)****6.10 Mobile equipment (general)**

- 6.10.1. General requirements
- 6.10.2. Internal movement vehicles
- 6.10.3. Trailer operations
- 6.10.4. Trestles
- 6.10.5. Goosenecks
- 6.10.6. Roll trailers
- 6.10.7. Cassettes
- 6.10.8. Parking
- 6.10.9. Refuelling

6.11 Liquid bulk cargoes**6.12 Logs****6.13 Mooring operations****6.14 Pallet handling****6.15 Passenger terminals****6.16 Rail operations**

- 6.16.1. General requirements
- 6.16.2. Loading and unloading of rail wagons
- 6.16.3. Moving rail wagons

6.17 Roll-on-roll-off (ro-ro) operations**6.18 Scrap metal****6.19 Solid bulk cargoes****6.20 Stacking and stowing of goods**

6.21 Steel and other metal products

- 6.21.1. General requirements
- 6.21.2. Storage
- 6.21.3. Handling

6.22 Trade vehicles**6.23 Traffic control****6.24 Warehouses and transit sheds****6.25 Confined spaces**

- 6.25.1. General requirements
- 6.25.2. Hazards and precautions

Section 7 – Operations afloat**7.1 General provisions****7.2 Access to ships**

- 7.2.1. General requirements
- 7.2.2. Accommodation ladders
- 7.2.3. Gangways
- 7.2.4. Portable ladders
- 7.2.5. Rope ladders
- 7.2.6. Bulwark steps
- 7.2.7. Access to the decks of bulk carriers and other large ships
- 7.2.8. Access to barges and other small ships
- 7.2.9. Access to ro-ro ships
- 7.2.10. Ship-to-ship access
- 7.2.11. Access by water

7.3 Access on board ships

- 7.3.1. General requirements
- 7.3.2. Access to holds
- 7.3.3. Access to deck cargo

7.4 Hatches

- 7.4.1. Hatch coverings
- 7.4.2. Handling hatch coverings
- 7.4.3. Stacking and securing of hatch coverings
- 7.4.4. Protection of hatches

7.5 Work in holds

- 7.5.1. General requirements
- 7.5.2. Working practices

7.6 Work on deck

- 7.6.1. General requirements
- 7.6.2. Lashing and securing of cargo

7.7 Shot cargo**7.8 Container ships**

- 7.8.1. General requirements
- 7.8.2. Deck working
- 7.8.3. Container top working

7.9 Ro-ro ships

- 7.9.1. General requirements
- 7.9.2. Vehicle movements
- 7.9.3. Passenger movements
- 7.9.4. Vehicle lashing operations
- 7.9.5. Cargo lifts

7.10 Bulk carriers**7.11 Hot work**

Section 8 – Dangerous goods**8.1 Packaged dangerous goods**

- 8.1.1. General requirements
- 8.1.2. International arrangements
- 8.1.3. United Nations classification
- 8.1.4. *IMDG Code*
- 8.1.5. Checking of packaged dangerous goods

8.2 Solid bulk cargoes**8.3 Bulk liquids and gases****8.4 Operational precautions**

- 8.4.1. General requirements
- 8.4.2. Training
- 8.4.3. Control of entry and presence
- 8.4.4. Notification of dangerous goods
- 8.4.5. Checking the information
- 8.4.6. Handling and stowage
- 8.4.7. Emergency arrangements in the port area
- 8.4.8. Special provisions
- 8.4.9. Repair and maintenance work

Section 9 – Health**9.1 Health hazards**

- 9.1.1. General requirements
- 9.1.2. Dangerous goods and fumigation
- 9.1.3. Dusty cargoes
- 9.1.4. Other cargoes
- 9.1.5. Noise
- 9.1.6. Fatigue
- 9.1.7. Fumes
- 9.1.8. Vibration
- 9.1.9. Abnormal environments
- 9.1.10. Other health aspects
- 9.1.11. Ergonomics

9.2 Occupational health services

- 9.2.1. General principles
- 9.2.2. First-aid personnel
- 9.2.3. Personnel providing occupational health services

Section 10 – Personnel welfare facilities**10.1. General provisions****10.2. Toilet facilities****10.3. Washing facilities****10.4. Clothing accommodation****10.5. Drinking water****10.6. Mess rooms and canteens****10.7. Hiring halls and waiting rooms**

Section 11 – Emergency arrangements

11.1 Emergency arrangement on shore and ship

- 11.1.1 General requirements
- 11.1.2 Injuries and ill health
- 11.1.3 Rescue
- 11.1.4 Property damage
- 11.1.5 Fire
- 11.1.6 Cargo spillage
- 11.1.7 Falls into water
- 11.1.8 Failure of services
- 11.1.9 Severe weather and other natural hazards
- 11.1.10 Major hazard installations

11.2 Emergency planning

- 11.2.1 General requirements
- 11.2.2 Scope
- 11.2.3 Responsibilities
- 11.2.4 Liaison
- 11.2.5 Emergency plans
 - 11.2.5.1 General requirements
 - 11.2.5.2 Essential personnel
 - 11.2.5.3 Roles
 - 11.2.5.4 Emergency control centre
 - 11.2.5.5 Publication, exercise and review

11.3 Emergency equipment

Section 12 – Other relevant safety matters

12.1 Environment

- 12.1.1 General requirements
- 12.1.2 Environmental management systems
- 12.1.3 Environmental aspects of port operations
- 12.1.4 Precautions

12.2 Security

3.7 The **CoP** also contains a *list of, references* and the following *appendices*:

- Appendix A. Testing of lifting appliances
- Appendix B. Testing of loose gear
- Appendix C. Thorough examination of lifting appliances and loose gear
- Appendix D. Test loading
- Appendix E. Factor of safety (coefficient of utilization)
- Appendix F. Steel quality grade mark
- Appendix G. Heat treatment of wrought iron
- Appendix H. Marking of single-sheave blocks

3.8 The recommendations contained in the **CoP** are explained in detail by means of illustrations (graphics, pictures, drawings, etc.), where appropriate.

3.9 It should be noted that the CoP is not a legally binding instrument.

3.10 It should also be stressed that the **CoP** is not intended to replace national laws and regulations or to affect the fundamental principles and rights of workers provided by ILO instruments.

3.11 The practical recommendations set out in the **CoP** are intended to provide relevant guidance to ILO constituents and to all those responsible for or involved in the management, operation, maintenance and development of ports.

3.12 It is hoped that the **CoP** will help to raise the profile of safety and health issues in ports the world over and encourage more countries to ratify the Occupational Safety and Health (Dock Work) Convention, 1979 (No. 152), or otherwise implement its provisions.

Section 4

Guidelines on Occupational Safety and Health Management Systems (ILO-OSH 2001), SafeWork, ILO Geneva

4.1 Background

4.1.1 Owing to the ever-increasing pace of technological progress and of worldwide liberalization of trade and economy, the number of occupational accidents and diseases is growing in many developing countries. It is estimated that every year over 1.2 million workers are killed as a result of work-related accidents and diseases, and that there are some 250 million occupational accidents and 160 million cases of work-related illness. The ensuing economic loss is estimated to amount to 4% of world gross national product.

4.1.2 After the successful introduction of the “systems” approach to management by the International Organization for Standardization (ISO) through its series on Quality Management (ISO 9000 series) and Environmental Management (14000 series) in the early 1990s, it was thought that the same approach could be used for managing occupational safety and health at the *organization* level. The possible initiation of work to develop an ISO standard on OSH Management Systems was discussed at an ISO International Workshop on OSH-MS Standardization in 1996. The workshop concluded that the ISO should discontinue its efforts and that the International Labour Organization (ILO), because of its tripartite structure, would be a more appropriate body to elaborate international guidance documents for the establishment and implementation of effective occupational safety and health management systems.

4.1.3 In the light of that conclusion, in 1988 the Occupational Safety and Health Branch (now: SafeWork) of the ILO, in cooperation with the International Occupational Hygiene Association (IOHA), started identifying key OSH-MS elements in existing standards. The first step was to review existing OSH management system standards and guidance documents. Based on this review, common elements of OSH management systems were identified and draft Guidelines prepared. Over a period of nearly two years, the draft was systematically reviewed by international experts, and continuously improved upon.

4.1.4 At the end of 1999, the British Standards Institution (BSI), an ISO member body, launched an official proposal for the establishment of a new field of technical activity, "Occupational health and safety management", with a view to developing an ISO standard. This competing initiative to ongoing ILO work encountered strong international opposition and prompted a campaign to stop the ISO work. These moves resulted in the failure of the BSI proposal in favour of the ILO.

4.1.5 The final draft of the ILO document was submitted for comments to ILO constituents in January 2001. The ILO *Guidelines on Occupational Safety and Health Management Systems* (ILO-OSH 2001) were adopted at a tripartite Meeting of experts in April 2001, and the ILO Governing Body approved their publication in June 2001. The Guidelines were published in December 2001.

4.2 ILO Guidelines on Occupational Safety and Health Management Systems (ILO-OSH 2001)

4.2.1 ILO-OSH 2001 provides a unique international model, compatible with other management system standards and guides. It is not legally binding and is not intended to replace national laws, regulations and accepted standards. It reflects ILO values such as tripartism and relevant international standards, including the Occupational Safety and Health Convention, 1981 (No. 155), and the Occupational Health Services Convention, 1985 (No. 161). Its application does not require certification but does not exclude it as a means of recognition of good practice if this is the wish of the country implementing the Guidelines.

4.2.2 The ILO Guidelines encourage the integration of OSH-MS with other management systems and state that OSH should be an integral part of business management. While integration is desirable, flexible arrangements are required depending on the size and type of operation. Ensuring good OSH performance is more important than formal integration. In addition, ILO-OSH 2001 emphasizes that OSH should be a line management responsibility at the organization.

4.2.3 The Guidelines provide guidance for implementation on two levels – *national* (Chapter 2) and *organizational* (Chapter 3).

4.2.3.1 ***A national framework for occupational safety and health management systems***

4.2.3.1.1 The Guidelines provide for the establishment of a national framework for OSH management systems, preferably supported by national laws and regulations. Action at national level includes the nomination of one or more competent institutions for OSH-MS, the formulation of a coherent national policy, and the establishment of a framework for an effective national application of ILO-OSH 2001 either by means of its direct implementation in *organizations* or its adaptation to national conditions and practice (through national guidelines) and the specific needs of *organizations* in accordance with their size and nature of activities (through tailored guidelines).

4.2.3.1.2 The national OSH-MS policy should be formulated by competent institution(s) in consultation with employers' and workers' organizations, and should:

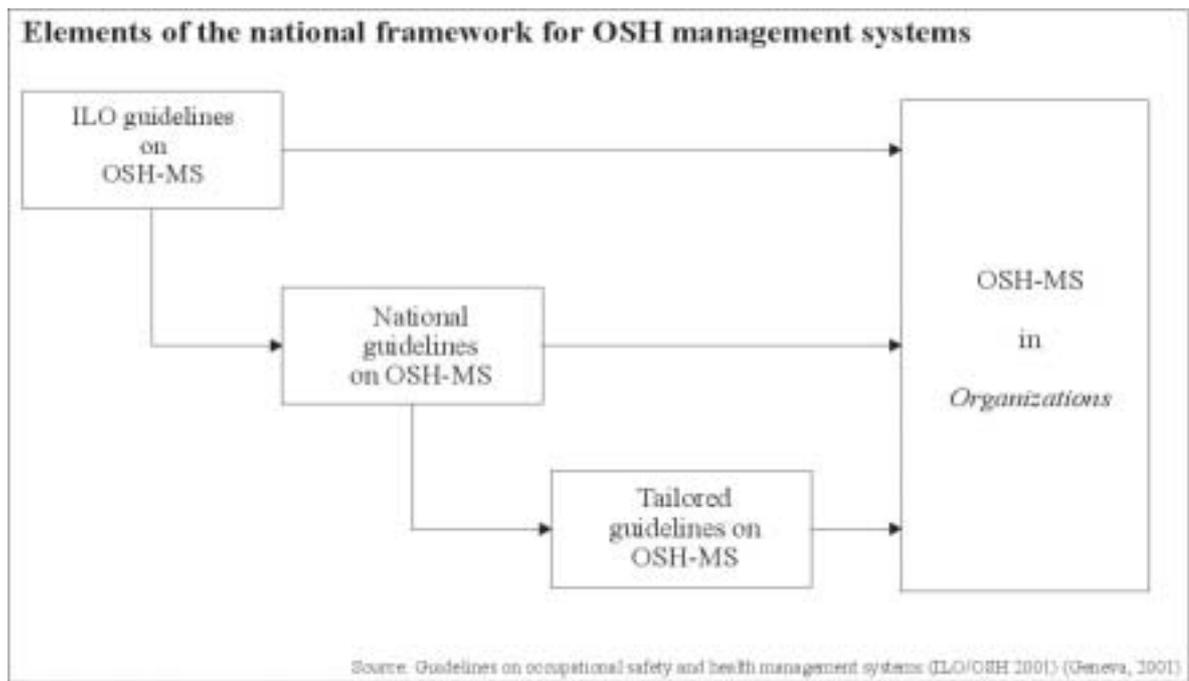
1. Promote OSH-MS as part of overall management;
2. Promote voluntary arrangements for systematic OSH improvement;
3. Avoid unnecessary bureaucracy, administration and costs; and
4. Promote support by labour inspectorates, occupational safety and health services and other services.

4.2.3.1.3 The functions and responsibilities of implementing institutions should also be clearly defined. **Figure 1**, taken from the Guidelines, outlines the elements of the national framework for OSH management systems. It shows the different ways in which ILO-OSH 2001 may be implemented in a member State.

4.2.3.2 ***The occupational safety and health management system in the organization***

4.2.3.2.1 Chapter 3 of ILO-OSH 2001 deals with the occupational safety and health management system at the *organizational* level. The Guidelines stress that compliance with national laws and regulations is the employer's responsibility. ILO-OSH 2001 encourages the integration of OSH management system elements into overall policy and management arrangements, as well as stressing the importance that at the *organizational* level OSH should be a line management responsibility and not be seen as a task for OSH departments and/or specialists.

Figure 1. Elements of the national framework for OSH management systems

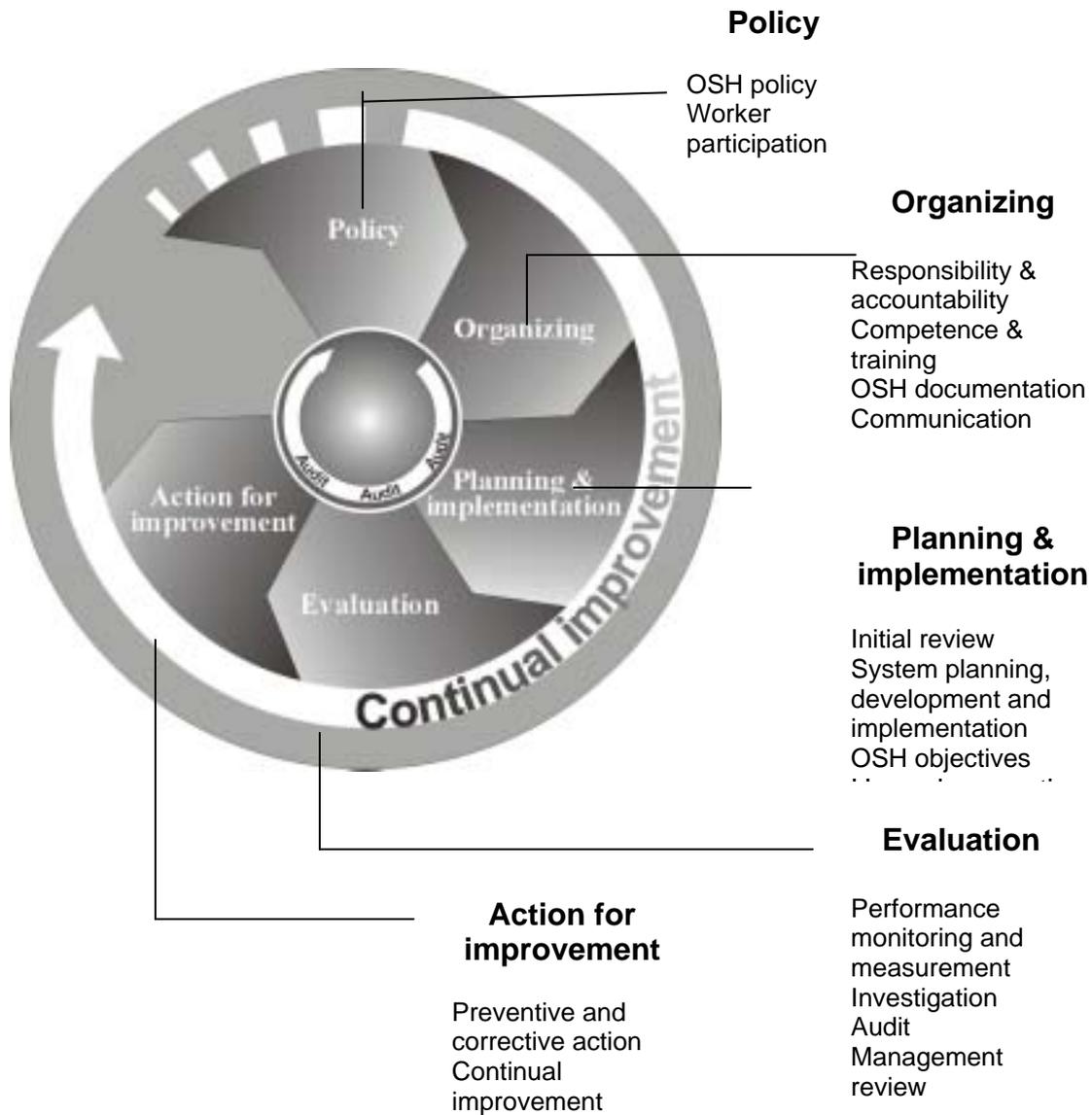


4.2.3.2.2 The OSH management system in the *organization* has five main sections; these follow the internationally accepted Demming cycle of Plan-Do-Check-Act, which is the basis of the “system” approach to management. The five sections are: *Policy*, *Organizing*, *Planning and implementation*, *Evaluation* and *Action for improvement*.

4.2.3.2.3 *Policy* contains the elements of OSH policy and worker participation. It is the basis of the OSH management system as it sets the direction for the *organization* to follow. *Organizing* covers the elements of responsibility and accountability, competence and training, documentation and communication. It ensures that the management structure is in place and that the responsibilities necessary for delivering OSH policy have been assigned. *Planning and implementation* comprises the elements of initial review, system planning, development and implementation, OSH objectives and hazard prevention. Through the initial review, it shows where the *organization* stands concerning OSH, and uses this as the baseline to implement OSH policy. *Evaluation* contains the elements of performance monitoring and measurement, investigation of work-related injuries, ill health, diseases and incidents, audit and management review. It shows how the OSH management system functions, and identifies any weaknesses that need remedying. It includes the very important element of auditing, which should be undertaken for each stage. Audits should be conducted by persons independent of the activity being audited, though this does not necessarily mean third party auditors. *Action for improvement* includes the elements of preventive and corrective action and continual improvement. It implements the necessary preventive and corrective action identified by the evaluation and the audits. It also emphasizes the need for continual improvement of OSH performance through the constant development of policies, systems and techniques to prevent and control work-related injuries, ill health, diseases and incidents.

4.2.3.2.4 The main components of the OSH management system at the level of the *organization* are shown in **figure 2**.

Figure 2. Main elements of the OSH management system



Section 5

Introduction to ISO 9001:2000 Quality Management Systems - Requirements

5.1 Introduction

5.1.1 The International Standard ISO 9001:2000 Quality Management Systems - Requirements is the third edition. It was prepared by the Technical Committee ISO/TC 176 (Quality Management and Quality Assurance) of the International Organization for Standardization (ISO) and incorporates the provisions of ISO 9002:1994 and ISO 9003:1994, which were withdrawn upon the publication of the new standard.

5.1.2 The terminology and definitions used in this standard comply with those stipulated in ISO 9000:2000 Quality management systems – Fundamentals and Vocabulary.

5.1.3 ISO 9001:2000 presents the requirements for a quality management system and includes the need for an organization to demonstrate its capability to achieve customer satisfaction, whereas the previous edition (ISO 9001:1994) addressed only quality assurance of product and /or service conformity.

5.1.4 ISO 9001:2000 can be used by organizations or companies to show that their processes are capable of meeting customer requirements with respect to product and/or services and by internal or external parties when assessing and certifying this capability.

5.1.5 Application of the standard does not mean that an organization or company has to alter its organizational structure, processes, practices or documentation. It can continue to use its current system if it can be demonstrated that it fulfils the requirements of the ISO standard.

5.1.6 In most instances, however, it will be necessary to adapt the existing management system documentation since the different subjects addressed by a management system will vary from one organization or company to another because of their unique purposes and different customer requirements.

5.1.7 It should be noted that this standard is compatible with other internationally recognized management systems and therefore may be integrated fully or in part into other systems, especially when they contain common requirements. The environmental management or occupational and health management systems are good examples of this.

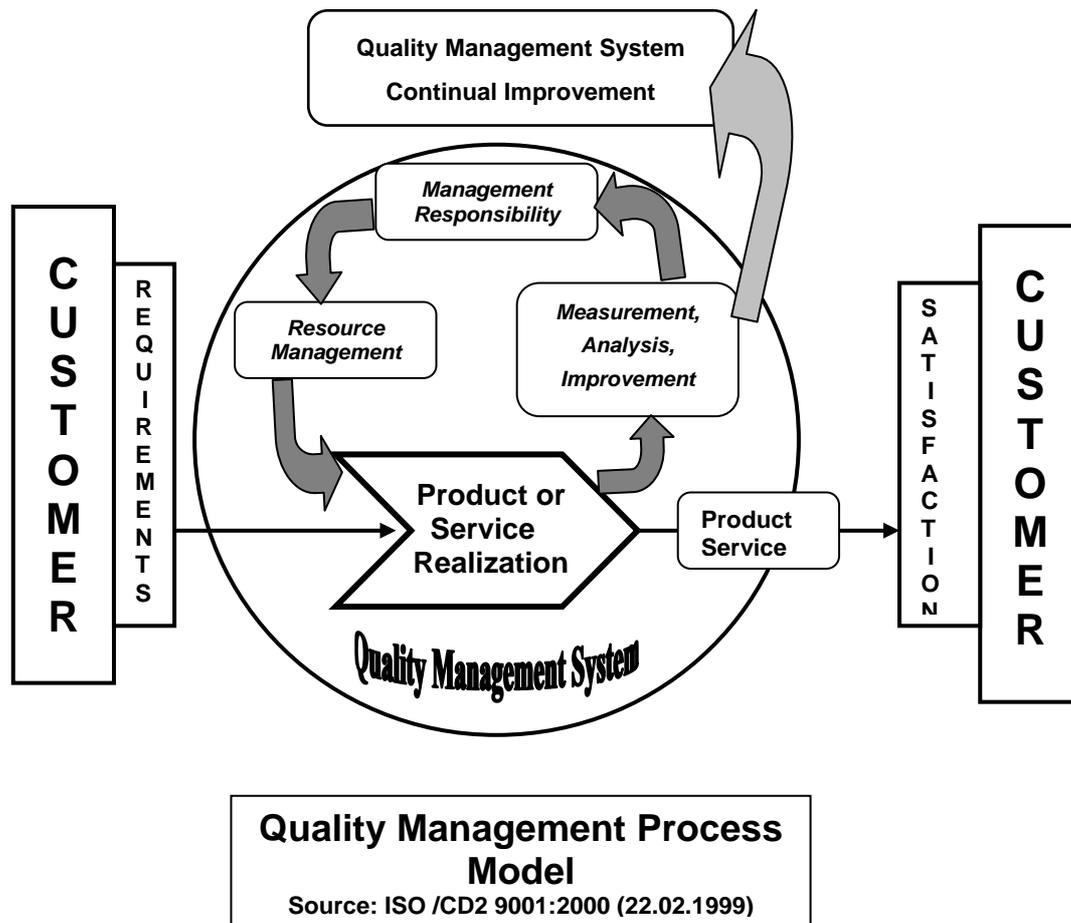
5.1.8 In these cases it is not necessary to duplicate common requirements, nor should conflicting requirements be imposed through the application of this standard.

5.1.9 As stated above, the main aim of ISO 9001:2000 is to provide organizations or companies with a system that ensures customers' satisfaction by providing them with the product or service of a quality that they expect and require.

5.1.10 To achieve this, the standard encourages the use of the "process approach", the concept of which is shown in **figure 3**.

5.1.11 The "Process Model" (see figure 3) is based on the fact that almost all products or services require an input from the customer (e.g. product or service specification) and must go through various activities or operations before being delivered to the customer as the completed product or service (output). These activities or operations are considered to be processes.

Figure 3.



5.2 Quality management system (QMS) requirements

5.2.1 The main requirements of this system are that the organization or company should have in place quality management system procedures that define how their processes ensure that the product manufactured and/or service provided conforms to customer requirements. These system procedures have to be implemented, maintained and improved continuously.

5.2.2 The management system procedures shall include:

1. System level procedures that describe the activities required to implement the QMS;
2. Procedures that describe the sequence and interactive nature of the processes necessary to ensure the conformity of the product and/or service; and
3. Instructions that describe the operating practice and control of the process activities.

5.2.3 The range and extent of the system procedures depend upon the size and type of the organization or company, the complexity and interaction of the processes, the methods used and the skills and training of the personnel involved in the processes.

5.3 Management responsibilities

5.3.1 General requirements

The management must demonstrate its commitment to the QMS by:

1. Creating and maintaining staff awareness of the importance of fulfilling customer requirements;
2. Establishing quality policy, objectives and planning;
3. Establishing a quality management system;
4. Performing management reviews; and
5. Ensuring the availability of resources.

5.3.2 Customer requirements

The top management must ensure that customer needs and expectations are determined, converted into requirements, and that the latter are fully understood and met.

5.3.3 Legal requirements

Furthermore, procedures must be established and maintained to identify and make available all legal requirements applicable to the quality aspects of the product and/or service.

5.3.4 Policy

The top management must establish a quality policy and ensure that it:

1. Is appropriate for the needs of the organization or company and its customers;
2. Includes commitment to meeting requirements and continual improvement;
3. Is communicated, understood and implemented throughout the organization or company; and
4. Is continuously reviewed with the aim of improvement and determination of its continued suitability.

5.3.5 Planning

5.3.5.1 Planning the system consists in setting the quality objectives at each relevant function and level of the organization or company and in identifying and planning the activities and resources needed to achieve the quality objectives.

5.3.5.2 The planning must cover all processes, including their realization, the resources needed at each different stage of the process, the activities necessary to verify the results, criteria for acceptability and the quality records needed.

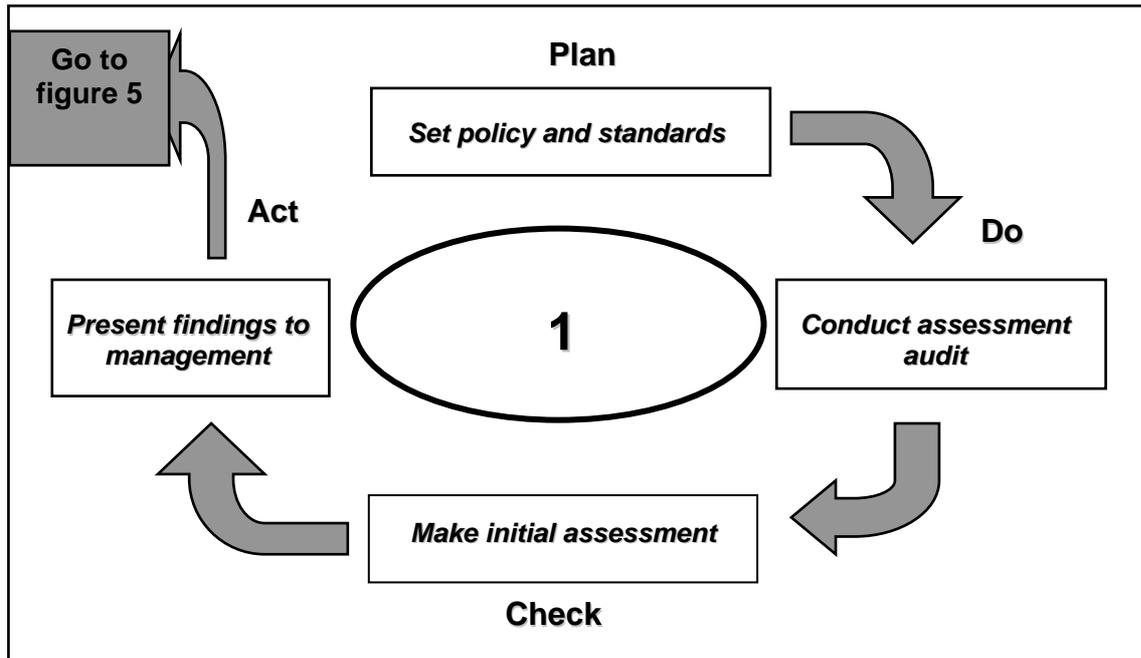
5.3.5.3 The planning must also ensure that organizational changes are conducted in a controlled manner and that the QMS is maintained during those changes.

5.3.5.4 It is important that the personnel participate in the planning, especially in the development of procedures and instructions, to ensure that policies are understood, that procedures and instructions are practicable and realistic, and that the staff are motivated and take part in the QMS.

5.3.5.5 Planning, implementation and continual improvement will always involve four steps: *Plan, Do, Check and Act*. **Figure 4** shows the *four steps* required in planning the QMS.

5.3.5.6 The management must first of all define the policy and output expected, based on identified customer requirements (**step 1**). Next, an initial audit is conducted to establish the present situation (**step 2**) and identify the difference between the intended policy and output and the actual organization / procedures (**step 3**). Finally, the results of the initial assessment are presented to management (**step 4**).

Figure 4. Planning the QMS



5.4 Quality Management System (QMS)

5.4.1 Implementation

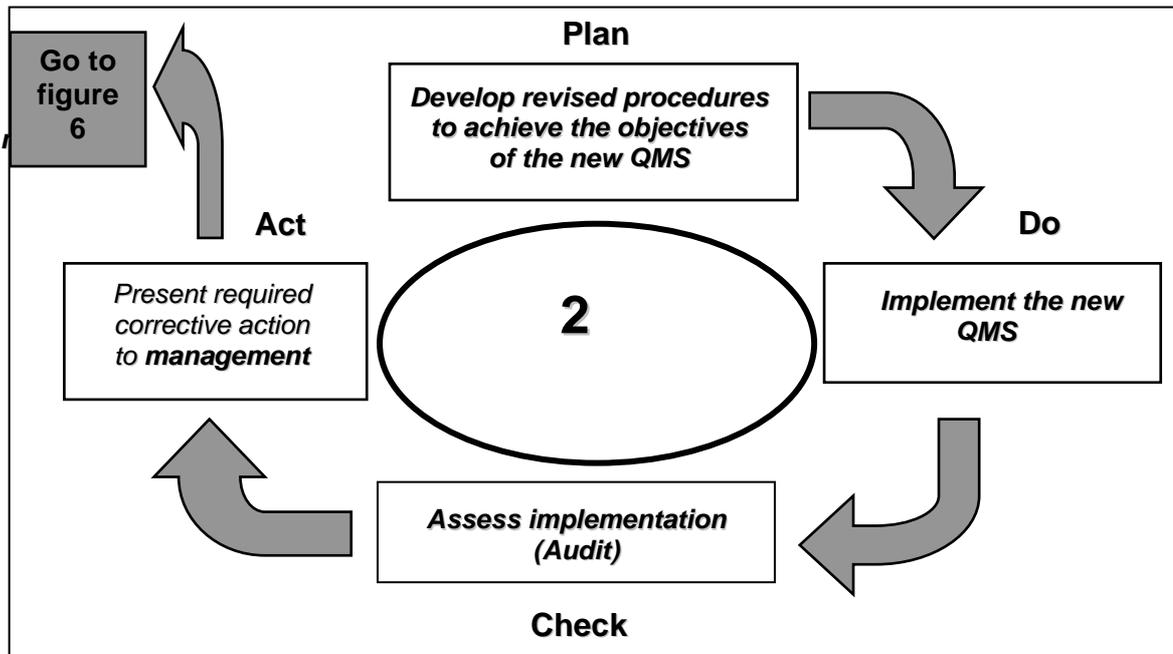
5.4.1.1 After receiving the findings of the initial assessment, the management must define the changes required to achieve the objectives set and develop the appropriate organizational structure and procedures (**step 1**), implement the new system (**step 2**), assess the implementation by means of an internal and/or external audit (**step 3**), and finally receive and evaluate the non-conformities reported and action recommended by the auditors (**step 4**).

5.4.1.2 The implementation phases are shown in **figure 5**.

5.4.2 **General requirements**

Once the QMS has been established, the organization or company must ensure that its quality policy is met, its quality objectives are achieved and the product and/or service are conform to customer requirements and specifications.

Figure 5. Implementation of the QMS



5.4.3 **Responsibility and authority**

5.4.3.1 For any management system to work properly, the roles and their interrelations, as well as the responsibilities and authorities of each person, group, section, department, etc., must be clearly defined.

5.4.3.2 These roles, responsibilities and authorities must be communicated to all parties and levels within the organization or company.

5.4.3.3 Also, any freedom to organize certain tasks and to make decisions must be clearly defined, if this may affect quality.

5.4.4 **Management representative**

5.4.4.1 To establish and maintain a proper QMS, it is important for the organization or company to appoint a qualified person (or persons) with an appropriate knowledge of the system and its requirements to provide a link between the management and the departments.

5.4.4.2 This person, called "**designated person**", should be appointed by the highest level of management, should always have direct access to it, and should also be provided with the necessary resources to be able to carry out his/her function.

5.4.4.3 It is important that the responsibilities and authority of the "designated person" be clearly defined, documented and made known to all parties concerned.

5.4.4.4 The “designated person” is normally the liaison between management and the departments and/or external parties with an interest in the QMS.

5.4.5 **Internal communication**

To ensure proper functioning of the QMS, it is important to establish and maintain procedures related to internal communications between all levels.

5.4.6 **Quality Management System Manual**

5.4.6.1 To document their QMS and provide internal and external parties with a means to verify conformance with the system, the organization or company must prepare and maintain a “*Quality Management System Manual*”.

5.4.6.2 The manual must contain a description of the main elements of the QMS, the organizational set-up, the responsibilities and authorities, system level procedures, departmental procedures and detailed work instructions or references to them.

5.4.7 **Control of documents**

5.4.7.1 The QMS is a so-called “**documented system**” which requires an efficient control of QMS documentation. This control must be part of the system level procedures.

5.4.7.2 Effective control means that:

1. Documents are approved for adequacy and relevance before being released;
2. Documents are reviewed, updated when necessary and re-approved;
3. The number of original documents is identified, including their location and who maintains them;
4. Documents are legible, readily identifiable, retrievable and available at all locations where they are required in order to ensure effective functioning of the QMS;
5. Clear instructions as to the amendment procedures are available;
6. Only up-to-date and current documentation is in use; and
7. Obsolete documentation is removed immediately or, where it has to be retained for legal purposes, clearly identified as obsolete.

5.4.7.3 A master list of all documents or a similar procedure is an appropriate means of effective control.

5.4.7.4 External documents that are part of the system must be recorded in the master list and clearly identified as such, indicating their originators.

5.4.8 **Control of records**

The organization or company must maintain quality records so as to verify conformity with the requirements and effective operation of the QMS. Procedures relating to identification, storage, retrieval, protection, retention time, and disposition of the quality records must be established and maintained.

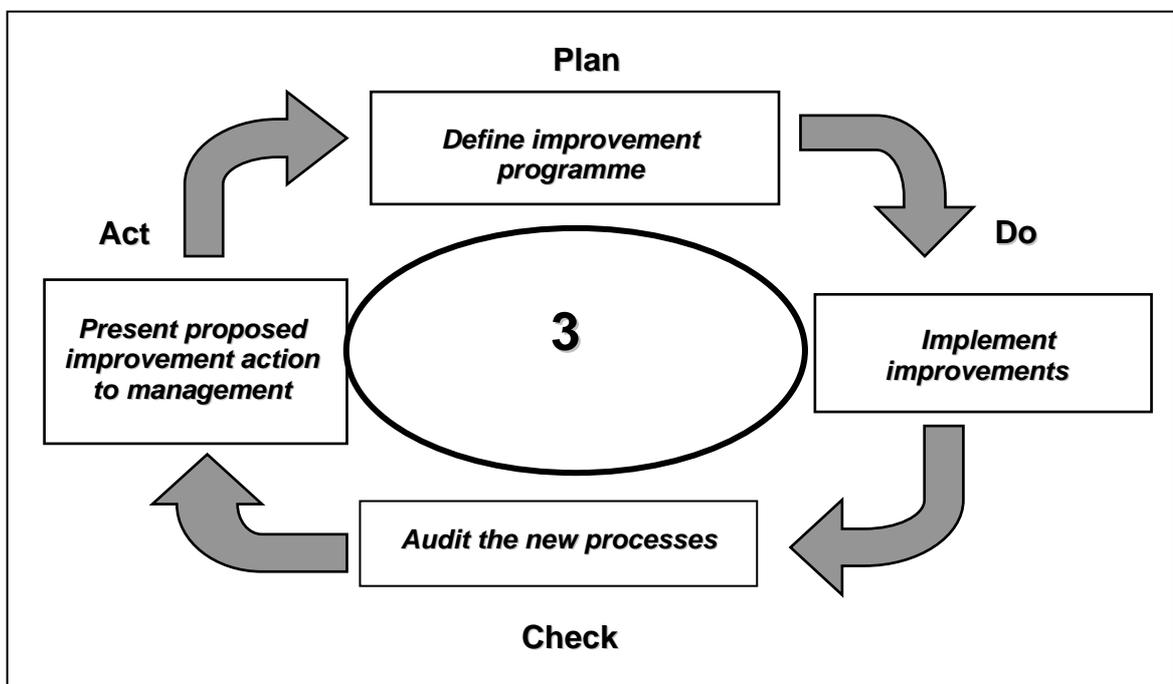
5.5 Management review

5.5.1 Top management must introduce system level procedures ensuring a periodic review of the QMS with the aim of evaluating the continuous suitability, adequacy and effectiveness of the processes and current performances, identifying the need for changes in the QMS, including policy and objectives, and establishing improvement opportunities.

5.5.2 The periodic management review must examine current performance and take into account the results of audits, customer feedback, process performance and product conformance analysis, status of preventive and corrective action, follow-up action on previous reviews, and changing circumstances.

5.5.3 **Figure 6** shows the management review process, the results of which must be recorded.

Figure 6. Continual improvement



Phase 3: Continual improvement
(Management review and/or measurement, analysis and improvement)

5.6 Resource management

The QMS requires that the organization or company define and implement system procedures to ensure timely determination and provision of required resources for the establishment and maintenance of the system. Such resources include:

1. Provision and assignment of competent, qualified, skilled and adequately trained personnel that are aware of the QMS requirements and the role they have to play in it (**human resources**);
2. Availability and accessibility of process, product, and/or service knowledge and/or experience and of data supplied by suppliers and customers (**information**);

3. Provision of appropriate workspace and associated facilities, equipment, hardware and software, suitable maintenance, and supporting services (**infrastructure**); and
4. Adequate health and safety conditions, work methods, work ethics and ambient working conditions (**work environment**).

5.7 Product and/or service realization

5.7.1 General requirements

The organization or company must determine, plan and implement processes that are operated under controlled conditions and ensure that the output of the processes meets customers' and product and/or service requirements.

5.7.2 Customer-related processes

5.7.2.1 The organization or company must establish a process that enables it to **identify customer requirements** such as product and/or service requirements, including product or service availability, delivery and support, as well as regulatory and legal requirements.

5.7.2.2 **Customer requirements** must be **reviewed** before a commitment to supply a product or service. The requirements should be clearly defined or at least confirmed in writing by the customer before accepting to provide the product or service.

5.7.2.3 In order to meet the customer's requirements, arrangements must be in place regarding **communication** between the organization or company and the customer.

5.7.3 Design and development

5.7.3.1 As a **general requirement**, the organization or company shall plan and control the design and/or development of the product and/or service. Plans should be available for all stages of design and/or development, the required review, verification and validation activities, and the responsibilities and authorities for the design and/or development.

5.7.3.2 The requirements to be met by the product and/or service must be defined and recorded. The **design and development input** must in particular include performance requirements and applicable regulatory, legal and environmental requirements.

5.7.3.3 In addition, **design and/or development outputs** should be recorded in such a way as to allow verification against input requirements. Output-related documents must be approved before release.

5.7.3.4 At suitable stages, the **design and/or development** must be systematically reviewed and the results of the reviews recorded.

5.7.3.5 **Design and/or development verification** must be planned and performed and the results of such verification and subsequent follow-up action recorded.

5.7.3.6 Prior to the delivery of a **product** or implementation of a **service** a **validation** or, where a full validation is not possible, at least a partial validation must be conducted to confirm that customer requirements will be met. The validation or partial validation process must be defined and planned and the results recorded.

5.7.3.7 Design and/or development changes or modifications are to be approved by authorized personnel only after the effect of the changes or modifications has been reviewed (**control of changes**). The changes as well as the results of the review and subsequent follow-up action must be recorded.

5.7.4 **Purchasing**

5.7.4.1 As a general requirement, the organization or company must control its purchases by establishing purchasing processes that ensure conformity of the purchased products and/or services with the organization's or company's requirements.

5.7.4.2 Evaluation, re-evaluation and selection criteria must be implemented to ensure that only suppliers meeting the requirements of the organization or company are used.

5.7.4.3 The results of an evaluation or re-evaluation, including subsequent follow-up action, must be recorded.

5.7.4.4 The **information** contained in the **purchasing** documents must clearly describe the product and/or service ordered, including the requirements of the management system, the approval procedures and qualification of the product and/or service, procedures, processes, equipment and personnel in this respect.

5.7.4.5 The organization or company must determine and implement arrangements for the **verification of purchased products and/or services**. If this verification is to be carried out on the supplier's premises, the arrangements and methods of product and/or service release must be specified in the purchasing documents.

5.7.5 **Production and service operation**

5.7.5.1 As a **general requirement**, the organization or company must plan and control production and service operations, including those undertaken after delivery. This entails the following:

1. Availability of specifications and characteristics of the product and/or service to be achieved;
2. Availability of clearly understandable work specifications or instructions;
3. Use and maintenance of suitable production, installation and service provision equipment;
4. Provision of a suitable working environment;
5. Availability and use of suitable measuring and monitoring equipment;
6. Implementation of suitable monitoring or verification activities; and
7. Suitable measures for release and delivery and/or installation of product and/or service.

5.7.5.2 The organization or company must have in place processes for **identification and traceability** of the status of required measurement and verification activities; the latter must include recording and controlling any unique identification of the product and/or service.

5.7.5.3 There must be a process ensuring that customer properties are taken care of while under the supervision of the organization or company. The process should include identification, verification, storage and maintenance of **customer property** as well as the recording and reporting of lost, damaged or unsuitable items.

5.7.5.4 The organization or company must ensure that during internal processing and final delivery of the product and/or service or any part thereof to the intended destination the conformity of the product and/or service is not affected by the **handling, packaging, storage, preservation and delivery**, and that delivery does not take place unless all required activities have been satisfactorily completed and the related documentation is available and authorized.

5.7.5.5 The organization or company must determine those production and/or service products where the resulting output cannot be readily or economically verified by subsequent monitoring, inspection or testing, for example where processing deficiencies can be detected or become apparent only after the product has been put into use or the service has been provided. In these cases **processes must be validated** to demonstrate their effectiveness and acceptability. Validation arrangements must include:

1. Processes to be qualified;
2. Qualification of equipment and/or personnel;
3. Use of specific procedures and/or records; and
4. Re-validation.

5.7.6 **Control of measuring and monitoring devices**

Measuring and monitoring devices used to demonstrate conformance of product and/or service to specific requirements need to be controlled, calibrated and maintained and properly handled, preserved and stored. The methods used by the organization or company to achieve the above must cover:

1. Calibration and adjustment of measuring and monitoring devices at specific intervals or prior to use;
2. Identification of measuring and monitoring devices with suitable indicators or approved identification record to show the status of the calibration;
3. Determination of the calibration method;
4. Recording the results of calibration;
5. Ensuring that environmental conditions are suitable for calibrations, measurements, inspections and tests;
6. Safeguarding the devices from adjustments that would invalidate the calibration; and
7. Assessment of the validity of previous inspections and test results, when a device is found to be out of calibration, and taking appropriate action.

5.8 **Measurement, analysis and improvement**

5.8.1 **General requirements**

5.8.1.1 The organization or company must define, plan and implement measurement, monitoring, analysis and improvement processes which ensure that the QMS, the processes and product and/or service are conform to requirements.

5.8.1.2 This includes defining the type, location, timing and frequency of measurements and recording requirements.

5.8.1.3 The effectiveness of the measures implemented should be evaluated periodically.

5.8.1.4 Appropriate statistical tools must be identified and used.

5.8.1.5 The results of data analysis and improvement activities shall be an input to the management review process.

5.8.2 **Measurement and monitoring**

5.8.2.1 The organization must determine and establish processes for **measuring and monitoring QMS performance**; customer satisfaction shall be used as one measure of system output and internal audits as a tool for evaluation of ongoing compliance.

5.8.2.2 With regard to **measuring and monitoring customer satisfaction** and/or dissatisfaction, methods and measures for obtaining and utilizing information on them must be defined.

5.8.2.3 The organization or company must carry out objective **internal audits** to determine if the QMS has been effectively implemented, using personnel that are not involved in the area being audited.

5.8.2.4 The system level procedure for internal audits must cover the scope, frequency and methodologies of such audits, the responsibilities and requirements for conducting them, as well as the recording and reporting of the results to management.

5.8.2.5 The audit process and the schedule must take into account the status and importance of the activity and/or area to be audited and the results of previous audits.

5.8.2.6 Suitable measures must be applied for measuring and monitoring the processes, as well as the conformance with the product and /or service requirements. The results of the measurements must be used to maintain and/or improve the processes and must be recorded, indicating the authority responsible for the release of the product and/or service.

5.8.3 **Control of non-conformities**

5.8.3.1 As a **general requirement** of a QMS, the organization or company should identify, record and review the nature and extent of non-conformities encountered during an audit. The control of non-conforming products and/or services must be part of system level procedures and ensure that non-conforming products and/or services are not delivered or used unintentionally.

5.8.3.2 There must be a clear definition of who is responsible for reviewing and resolving non-conformities and of the authority vested in such person or persons.

5.8.3.3 Part of the **review and disposition of non-conformities** is to determine the action to be taken to rectify them, such as:

1. Correcting or adjusting them so that they conform to the requirements; or
2. Getting them accepted under concession with or without correction or adjustment; or

3. Re-assigning them for alternative valid application; or
4. Rejecting them as unsuitable.

5.8.3.4 Use or repair of non-conforming products requires a concession on the part of the customer. Such concessions must be recorded and contain a description of the correction or adjustment, accepted non-conformity, product repair or service modification.

5.8.3.5 Verification requirements must be determined and implemented if a product and/or service repair or rework is carried out.

5.8.4 ***Analysis of data for improvement***

5.8.4.1 To determine the effectiveness of the QMS and identify the areas where improvements can be made, the organization or company must establish a system level procedure with regard to the analysis of applicable data.

5.8.4.2 This requires the collection of data generated by measuring and monitoring or by any other relevant source and the analysis of the data in order to obtain information on:

1. The suitability, effectiveness and adequacy of the QMS;
2. Process operation trends;
3. Customer satisfaction and/or dissatisfaction;
4. Conformance to customer requirements; and
5. Characteristics of processes, products and/or services.

5.8.5 ***Improvement***

5.8.5.1 As a ***general requirement***, a system level procedure must be established, describing how the quality policy, objectives, internal audit results, analysis of data, corrective and preventive action, and management review are used to continually improve the QMS.

5.8.5.2 To eliminate or reduce the cause of non-conformities and to prevent the recurrence thereof, a system level procedure must be established, defining the following requirements for ***corrective action***:

1. Identifying non-conformities (including customer complaints);
2. Determining the causes of non-conformities;
3. Evaluating the need for action to ensure that non-conformities do not recur;
4. Implementing any action determined necessary to ensure that non-conformities do not recur;
5. Recording any action taken; and
6. Ensuring that the corrective action taken is effective and has been recorded.

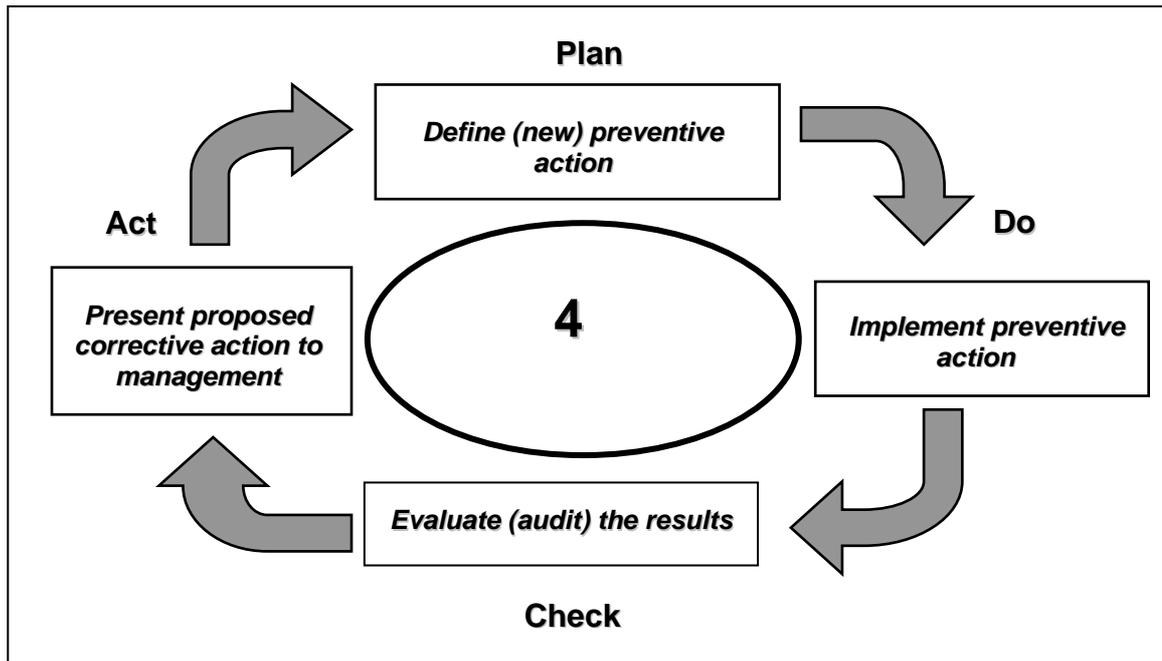
5.8.5.3 To eliminate the cause of potential non-conformities and to prevent the recurrence thereof, a system level procedure must be established. It should address the following ***preventive action***, using the QMS records and the results of the analysis of data as inputs, where applicable:

1. Identifying potential non-conformities;
2. Determining the causes of the potential non-conformities identified and recording the results;

3. Determining preventive action needed to eliminate causes of potential non-conformities;
4. Implementing preventive action; and
5. Ensuring that the preventive action taken is effective and has been recorded.

5.8.5.4 The system level procedure for establishing necessary corrective action is outlined in **figure 7**.

Figure 7. Corrective action procedure



Section 6

Introduction to ISO 14001:1996 Environmental Management Systems

6.1 Introduction

6.1.1 While the ISO 9000 series is used by organizations and companies as a model for a quality management system, the ISO 14000 series of standards is the model for an environmental management system.

6.1.2 ISO 14001:1996 Environmental Management Systems – Specification with guidance for use contains the compliance standards.

6.1.3 The standards aim at expanding the meeting of customer requirements, control of the process and continual improvement contained in ISO 9001 to include regulatory and other mandatory *environmental* requirements.

6.1.4 ISO 14001 does not replace regulations, legislation and codes of practice that an organization or company has to comply with. It rather provides a system for monitoring, controlling and improving performance regarding the requirements contained in such instruments.

6.1.5 It ties the mandatory requirements into a management system which is made up of objectives and targets focusing on meeting and exceeding the mandatory requirements with a focus on prevention and continual improvement.

6.2 ISO 14001 Environmental Management System (EMS) Model

6.2.1 Organizations or companies implementing an “Environmental Management System (EMS)” have to demonstrate that they are aware of the interactions that their products and activities have with the environment.

6.2.2 Furthermore, they have to set and implement management priorities and objectives aimed at achieving and continually improving the desired level of environmental performance. The EMS process is outlined in **figure 8**.

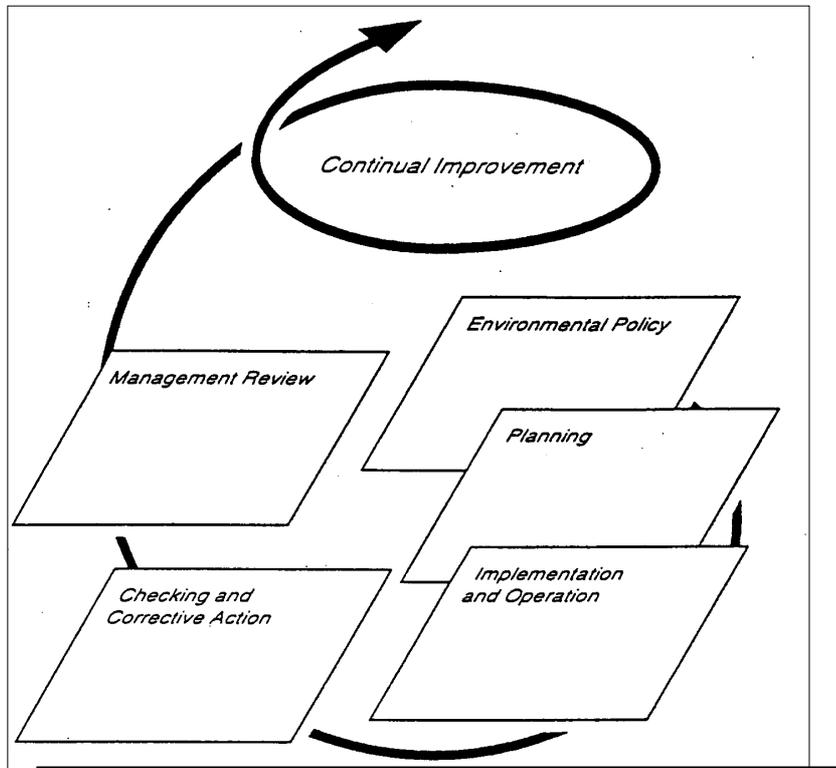
6.3 ISO 14001 Environmental Management System Elements

6.3.1 ISO 14001 uses the same fundamental systems as ISO 9001 or OHSAS 18001 such as documentation control, management system auditing, operational control, control of records, management policies, audits, training, statistical techniques, and corrective and preventive action.

6.3.2 Besides the similarities, ISO 14001 has clearer statements about communication, competence and economics than those currently found in ISO 9001. Also, ISO 14001 incorporates the setting of objectives and quantified targets, emergency preparedness, consideration of the view of interested parties, and public disclosure of the environmental policy.

6.3.3 However, there are also some definite differences. The most important one lies in continual improvement, because this shall not, as stipulated in ISO 9001, be driven by customer expectations only, but also by the desire to improve the environmental performance of the organization or company.

Figure 8. Environmental Management System Model



Source: Implementation of ISO 14001:1996 (BS EN ISO 14001:1996) Environmental management systems – Specification with guidance for use

6.3.4 **Table 1** lists the elements of an EMS.

Table 1. Elements of an environmental management system

| Section | Title |
|---------|---------------------------------------|
| 1. | Environmental policy |
| 2. | Planning |
| 2.1 | Environmental aspects |
| 2.2 | Legal and other requirements |
| 2.3 | Objectives and targets |
| 2.4 | Environmental management programme(s) |

| Section | Title |
|-----------|--|
| 3. | Implementation and operation |
| 3.1 | Structure and responsibility |
| 3.2 | Training, awareness and competence |
| 3.3 | Communication |
| 3.4 | Environmental management system documentation |
| 3.5 | Document control |
| 3.6 | Operational control |
| 3.7 | Emergency preparedness and response |
| 4. | Checking and corrective action |
| 4.1 | Monitoring and measurement |
| 4.2 | Non-conformance and corrective and preventive action |
| 4.3 | Records |
| 4.4 | Environmental management system audit |
| 5. | Management review |

6.3.5 A comparison between the contents of ISO 9001, ISO 14001 and OHSAS 18001 is given in section 8 below.

6.4 Implementation of the ISO 14001 Environmental Management System

6.4.1 As in the ISO 9001 Quality Management System, it is a prerequisite that the senior management is committed to the policies, aims and objectives of the ISO 14001 Environmental Management System.

6.4.2 The **reasons** for management deciding to implement and comply with ISO 14001 EMS are manifold; they include the latter's use as a:

1. Model for an EMS;
2. Format against which to audit the EMS;
3. Method of demonstrating EMS compliance;
4. Process for third party and/or customer recognition; and
5. Public declaration of their EMS.

6.4.3 Of course, the **benefits** derived from implementation will be another reason for management to implement the system: They may include:

1. Enhanced compliance with legislation;
2. Facilitated financial and real estate transactions, where environmental performance is a factor;
3. Reduced costs associated with consumer audits;

4. Ability to bid for contracts (protection or increase of market share);
5. Market forces (a real or perceived "greening" of the marketplace);
6. Economic return from increased efficiency of resource use; and
7. Increased ability to adapt to changing circumstances.

6.5 Integrating the ISO 14001 Environmental Management System

6.5.1 If the organization or company has other management systems in place such as ISO 9001 or OHSAS 18001 it is important that the EMS be integrated and not used as a "stand-alone" system. It will be difficult or impossible to maintain if it is not part of routine operations related to the ongoing activities of the organization or company and is not integrated into its other objectives, targets, procedures and systems.

Section 7

Introduction to OHSAS 18001:1999

Occupational Health and Safety Management Systems - Specification

7.1 Introduction

7.1.1 OHSAS 18001:1999 Occupational Health and Safety Assessment Series is a management system very similar to ISO 9001 Quality Management System (QMS) and ISO 14001 Environmental Management System (EMS), but is dedicated to occupational health and safety.

7.1.2 OHSAS 18001:1999 Occupational Health and Safety Management Systems – Specification (OHSAS) contains the compliance standards with guidance for use of the system.

7.1.3 OHSAS specifications are intended to address occupational health and safety and not product and service safety.

7.1.4 It should also be noted that OHSAS 18001 does not replace regulations, legislation and codes of practice that an organization or company must observe. It rather provides a system for monitoring, controlling and improving performance with regard to the requirements contained in such instruments.

7.1.5 Further, it ties mandatory requirements into a management system made up of objectives and targets focusing on meeting and exceeding such requirements, with a focus on the prevention of accidents and incidents and continual improvements in operations.

7.2 OHSAS 18001 Occupational Health and Safety Management System (OHSAS) Model

As shown in **figure 9**, the OHSAS 18001 model is very similar to the Environmental Management System (EMS) model explained in section 6; it therefore requires no further explanation.

7.3 OHSAS 18001 Occupational Health and Safety Management System Elements

7.3.1 OHSAS 18001 uses the same fundamental systems as ISO 9001 or ISO 14001, namely documentation control, management system auditing, operational control, control of records, management policies, audits, training, statistical techniques, and corrective and preventive action.

7.3.2 To avoid repetition of the details given in earlier sections, the four main system elements are shown in **figures 10 to 13** (*Source: Occupational Health and Safety Assessment Series; OHSAS 18001:1999 Occupational health and safety management systems – Specification*) and in **table 2** (see below).

Figure 9. Elements of successful OHS management

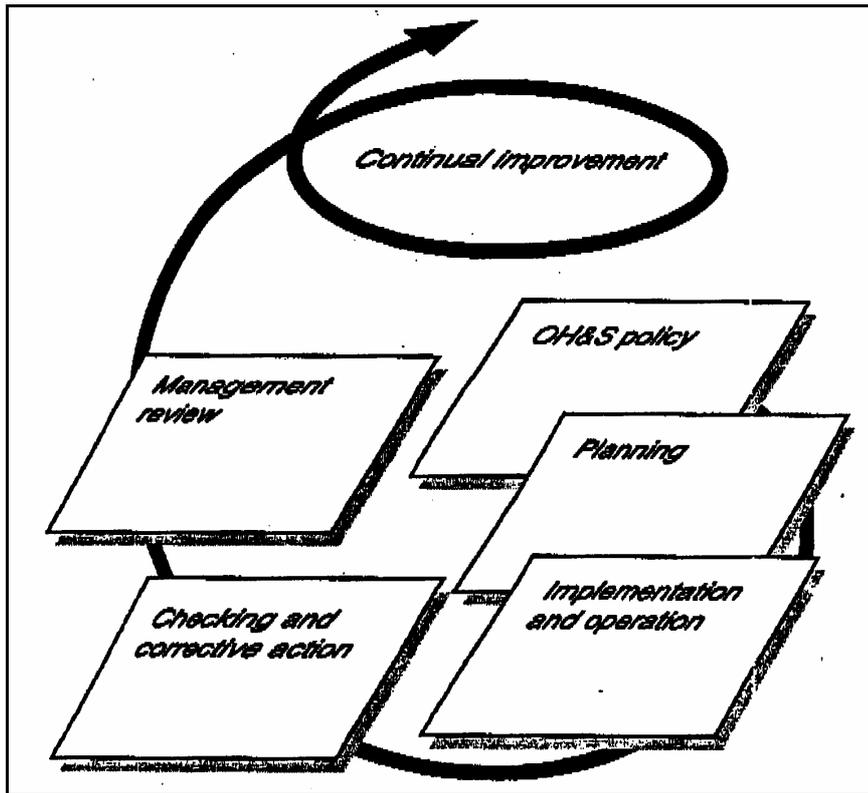


Figure 10. Planning

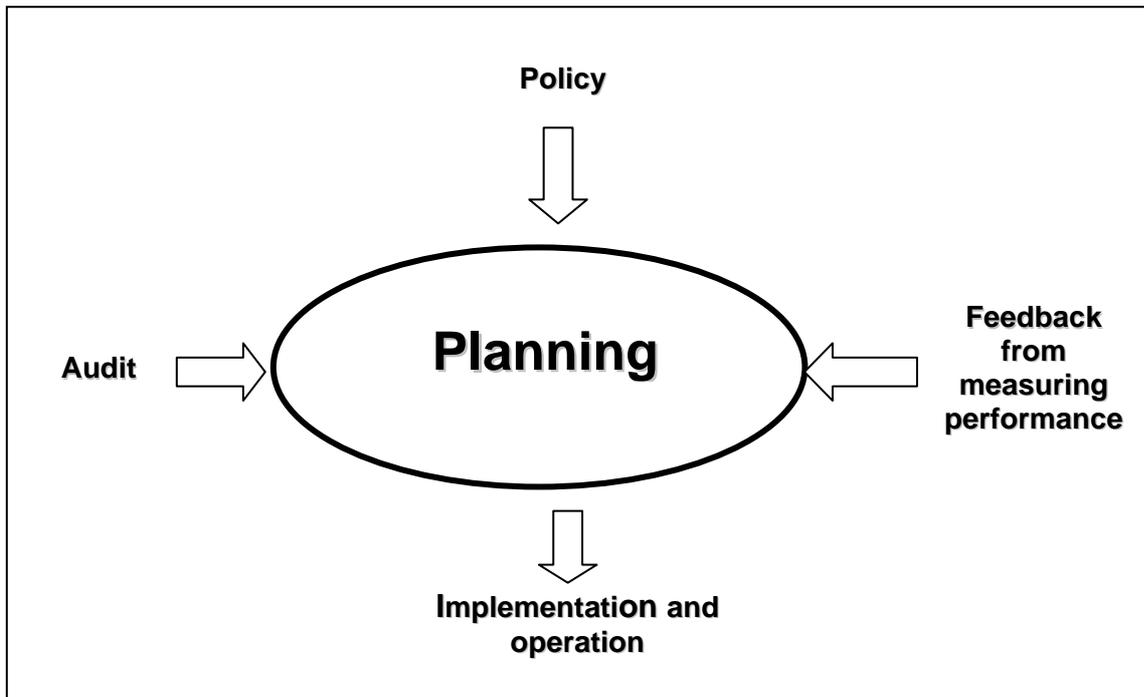


Figure 11. Implementation and operation

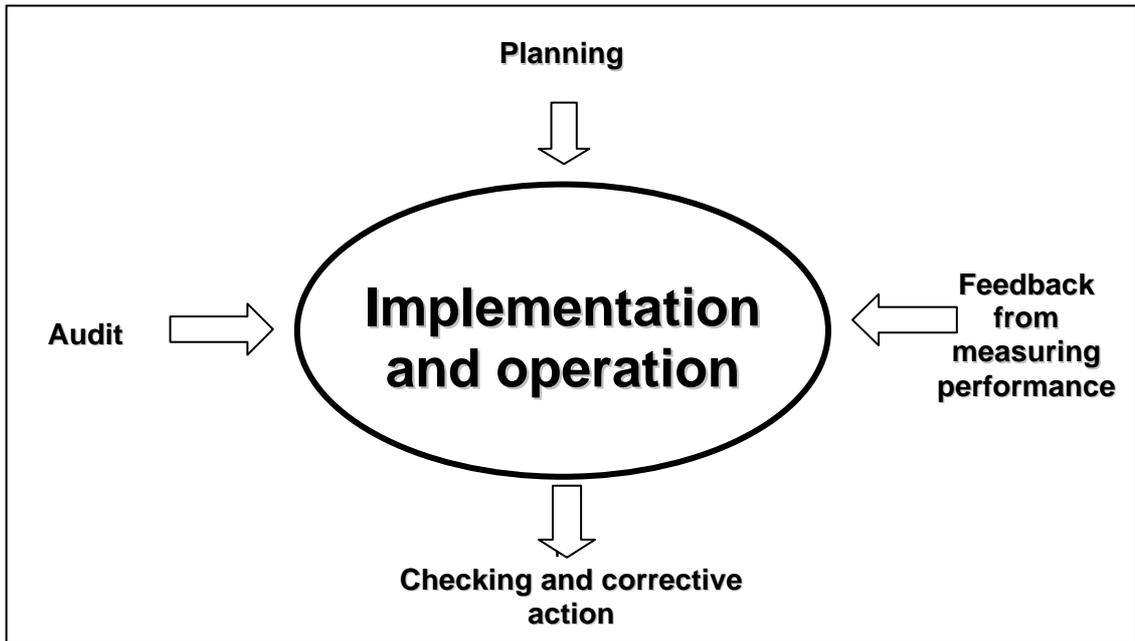


Figure 12. Checking and corrective action

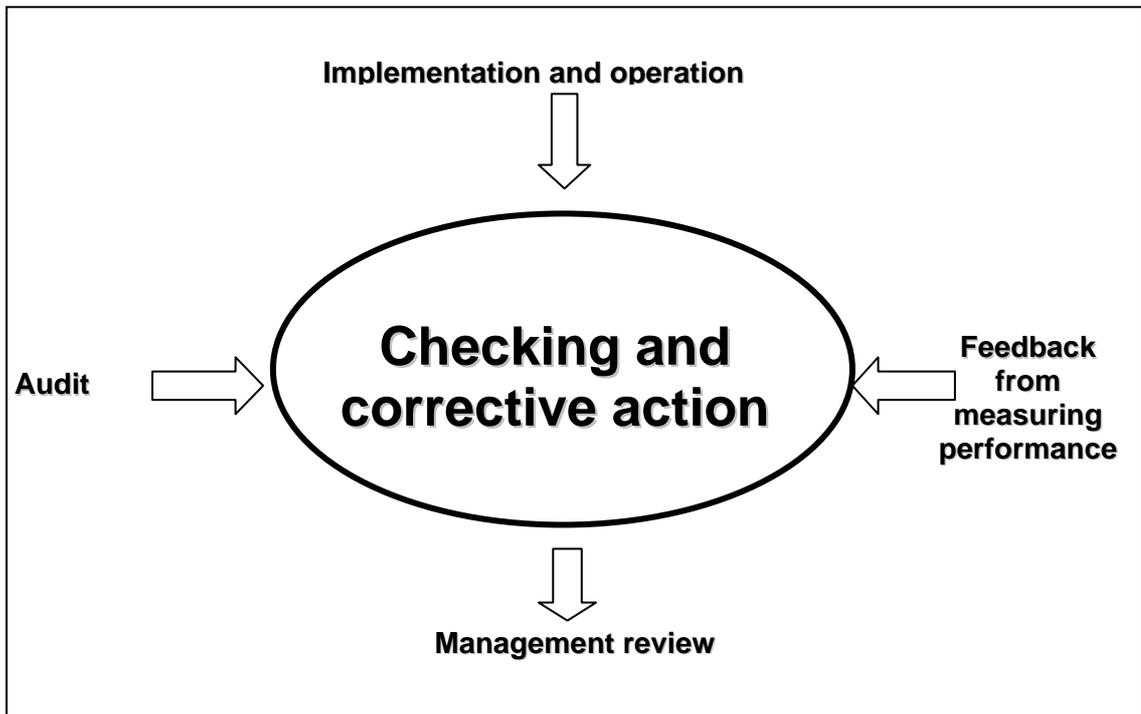
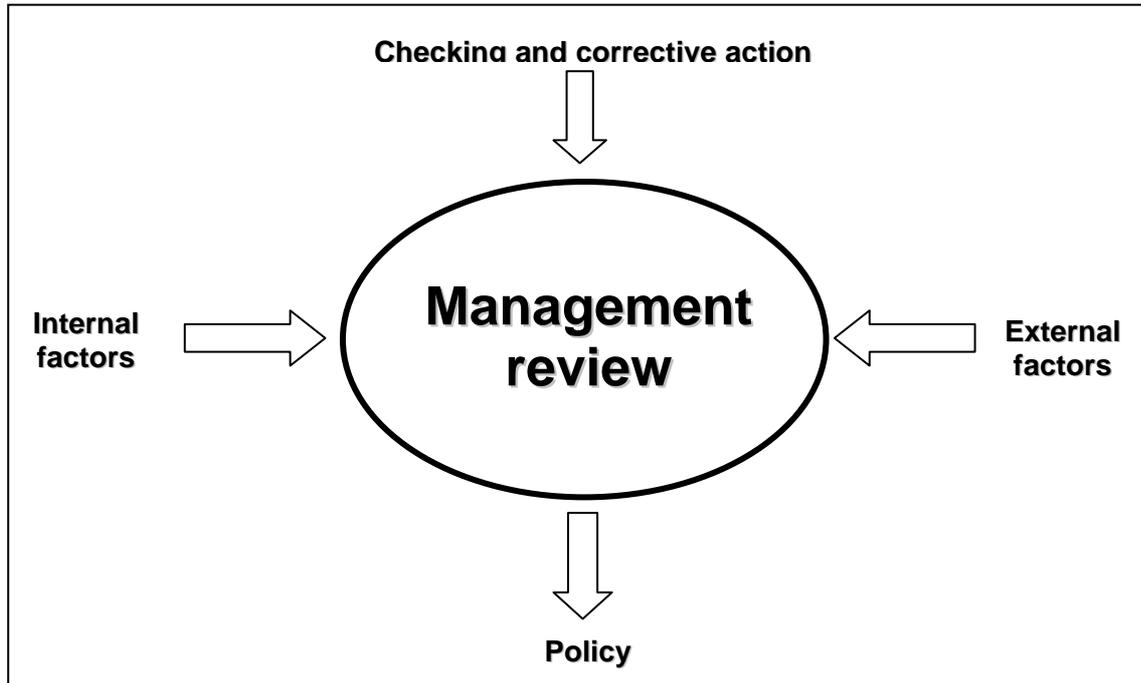


Figure 13. Management review



2.3.3 **Table 2** lists the elements of an OHSAS 18001 management system.

Table 2. Elements of an OHSAS 18001 management system

| Section | Title |
|---------|--|
| 1. | Scope |
| 2. | Reference publications |
| 3. | Terms and definitions |
| 4. | OH&S management system elements |
| 4.1 | General requirements |
| 4.2 | OH&S policy |
| 4.3 | Planning |
| 4.3.1 | Planning for hazard identification, risk assessment and risk control |
| 4.3.2 | Legal and other requirements |
| 4.3.3 | Objectives |
| 4.3.4 | OH&S management programme(s) |

| Section | Title |
|----------------|---|
| 4.4 | Implementation and operation |
| 4.4.1 | Structure and responsibility |
| 4.4.2 | Training, awareness and competence |
| 4.4.3 | Consultation and communication |
| 4.4.4 | Documentation |
| 4.4.5 | Document and data control |
| 4.4.6 | Operational control |
| 4.4.7 | Emergency preparedness and response |
| 4.5 | Checking and corrective action |
| 4.5.1 | Performance measurement and monitoring |
| 4.5.2 | Accidents, incidents, non-conformances and corrective and preventive action |
| 4.5.3 | Records and records management |
| 4.5.4 | Audit |
| 4.6 | Management review |

7.4 Integrating the OHSAS 18001 Occupational Health and Safety Management System

Here too if the organization or company has other management systems in place, such as ISO 9001 or ISO 14001, it is important that the OHSAS be integrated and not used as a “stand-alone” system. Once again, it will be difficult or impossible to maintain if it is not part of routine operations related to the ongoing activities of the organization or company and is not integrated with its other objectives, targets, procedures and systems.

Section 8

Relationship between Management Systems

8.1 While each of the systems (ISO 9001, ISO 14001 and OHSAS 18001) is a separate system with a distinct aim, they should be integrated, as already stated.

8.2 Table 3 shows the relationship and correspondence between the three systems; the comparison with ISO 9001 refers to the 1994 edition.

Table 3. Correspondence between OHSAS 18001, ISO 14001:1996 and ISO 9001:1994

| Clause | OHSAS 18001 | Clause | ISO 14001:1996 | Clause | ISO 9001:1994 |
|--------|--|--------|---|--------|--------------------------------|
| 1 | Scope | 1 | Scope | 1 | Scope |
| 2 | Reference publications | 2 | Normative references | 2 | Normative references |
| 3 | Terms and definitions | 3 | Definitions | 3 | Definitions |
| 4 | OH&S management system elements | 4 | Environmental management system requirements | 4 | Quality system requirements |
| 4.1 | General requirements | 4.1 | General requirements | 4.2.1 | General (1st sentence) |
| 4.2 | OH&S policy | 4.2 | Environmental policy | 4.1.1 | Quality policy |
| 4.3 | Planning | 4.3 | Planning | 4.2 | Quality system |
| 4.3.1 | Planning for hazard identification, risk assessment and risk control | 4.3.1 | Environmental aspects | 4.2 | Quality system |
| 4.3.2 | Legal and other requirements | 4.3.2 | Legal and other requirements | — | — |
| 4.3.3 | Objectives | 4.3.3 | Objectives and targets | 4.2 | Quality system |
| 4.3.4 | OH&S management programme(s) | 4.3.4 | Environmental management programme(s) | 4.2 | Quality system |
| 4.4 | Implementation and operation | 4.4 | Implementation and operation | 4.2 | Quality system |
| | | | | 4.9 | Process control |
| 4.4.1 | Structure and responsibility | 4.4.1 | Structure and responsibility | 4.1 | Management responsibility |
| | | | | 4.1.2 | Organization |
| 4.4.2 | Training, awareness and competence | 4.4.2 | Training, awareness and competence | 4.1.6 | Training |
| 4.4.3 | Consultation and communication | 4.4.3 | Communication | — | — |
| 4.4.4 | Documentation | 4.4.4 | Environmental management system documentation | 4.2.1 | General (without 1st sentence) |
| 4.4.5 | Document and data control | 4.4.5 | Document control | 4.5 | Document and data control |

Correspondence between OHSAS 18001, ISO 14001:1996 and ISO 9001:1994

| Clause | OHSAS 18001 | Clause | ISO 14001:1996 | Clause | ISO 9001:1994 |
|---------|---|---------|--|---|---|
| 4.4.6 | Operational control | 4.4.6 | Operational control | 4.2.2 4.3 4.4 4.6 4.7 4.8 4.9 4.15 4.19 4.20 | Quality system procedures Contract review Design control Purchasing Customer supplied product Product identification and traceability Process control Handling, storage, packaging, preservation and delivery Servicing Statistical techniques |
| 4.4.7 | Emergency preparedness and response | 4.4.7 | Emergency preparedness and response | — | — |
| 4.5 | Checking and corrective action | 4.5 | Checking and corrective action | — | — |
| 4.5.1 | Performance measurement and monitoring | 4.5.1 | Monitoring and measurement | 4.10 4.11 4.12 | Inspection and testing Control of inspection, measuring and test equipment Inspection and test status |
| 4.5.2 | Accidents, incidents, non-conformances and corrective and preventive action | 4.5.2 | Non-conformance and corrective and preventive action | 4.13 4.14 | Control of non-conforming product Corrective and preventive action |
| 4.5.3 | Records and records management | 4.5.3 | Records | 4.16 | Control of quality records |
| 4.5.4 | Audit | 4.5.4 | Environmental management system audit | 4.17 | Internal quality audits |
| 4.6 | Management review | 4.6 | Management review | 4.1.3 | Management review |
| Annex A | Correspondence to ISO 14001, ISO 9001 | Annex B | Correspondence to ISO 9001 | — | — |
| — | Bibliography | Annex C | Bibliography | Annex A | Bibliography |
| — | (See OHSAS 18002) | Annex A | Guidance on the use of the specification | — | — |

Source: Occupational Health and Safety Assessment Series; OHSAS 18001:1999 Occupational health and safety management systems – Specification- Annex A)

8.3 Because there are some differences between ISO 9001:1994 and ISO 9001:2000, the comparison between ISO 9001:2000 and ISO 14001:1996 shown in **table 4** allows to verify the differences between both system requirements:

Table 4. Comparison between ISO 9001:2000 and ISO 14001:1996

| ISO/CD2 9001:2000 | | ISO 14001: 1996 | |
|--|----------|-----------------|---|
| Introduction | 0 | - | Introduction |
| General | 0.1 | | |
| Process model | 0.2 | | |
| Compatibility with other management system disciplines | 0.3 | | |
| Scope | 1 | 1 | Scope |
| General | 1.1 | | |
| Reduction in scope | 1.2 | | |
| Normative reference | 2 | 2 | Normative references |
| Terms and definitions | 3 | 3 | Definitions |
| Quality management system requirements | 4 | 4 | Environmental management system requirements |
| | - | 4.1 | General requirements |
| Management responsibility | 5 | - | - |
| General requirements | 5.1 | - | - |
| Customer requirements | 5.2 | - | - |
| Legal requirements | 5.3 | 4.3.2 | Legal and other requirements |
| Policy | 5.4 | 4.2 | Environmental policy |
| Planning | 5.5 | 4.3 | Planning |
| Objectives | 5.5.1 | 4.3.3 | Objectives and targets |
| Quality planning | 5.5.2 | 4.3.4 | Environmental management program |
| Quality management system | 5.6 | - | - |
| General requirements | 5.6.1 | 4.1 | General requirements |
| Responsibility and authority | 5.6.2 | 4.4.1 | Structure and responsibility |
| Management representative | 5.6.3 | 4.4.1 | Structure and responsibility |
| Internal communication | 5.6.4 | 4.4.3 | Communication |
| Quality manual | 5.6.5 | 4.4.4 | Environmental management system documentation |
| Control of documents | 5.6.6 | 4.4.5 | Document control |
| Control of records | 5.6.7 | 4.5.3 | Records |
| Management review | 5.7 | 4.6 | Management review |
| Resource management | 6 | 4.4.1 | Structure and responsibility |
| General requirements | 6.1 | 4.4.1 | Structure and responsibility |
| Human resources | 6.2 | 4.4.1 | Structure and responsibility |
| Assignment of personnel | 6.2.1 | 4.4.1 | Structure and responsibility |
| Competence, training, qualification and awareness | 6.2.2 | 4.4.2 | Training, awareness and competence |
| Information | 6.3 | 4.4.4 | Environmental management system documentation |
| Infrastructure | 6.4 | 4.4.2 | Structure and responsibility |
| Work environment | 6.5 | 4.4.2 | Structure and responsibility |

| ISO/CD2 9001:2000 | | ISO 14001: 1996 | |
|---|-------|-----------------|---------------------------------------|
| Product and/or service realization | 7 | - | - |
| General requirements | 7.1 | 4.4.6 | Operational control |
| Customer-related processes | 7.2 | - | - |
| Identification of customer requirements | 7.2.1 | 4.3.2 | Legal and other requirements |
| Review of customer requirements | 7.2.2 | 4.3.2 | Legal and other requirements |
| Customer communication | 7.2.3 | 4.4.3 | Communications |
| Design and development | 7.3 | 4.3.1 | Environmental aspects |
| General requirements | 7.3.1 | 4.3.4 | Environmental management programme(s) |
| Design and development inputs | 7.3.2 | | |
| Design and development outputs | 7.3.3 | | |
| Design and development review | 7.3.4 | | |
| Design and development verification | 7.3.5 | | |
| Design and development validation | 7.3.6 | | |
| Control of changes | 7.3.7 | | |
| Purchasing | 7.4 | 4.4.6 | Operational control |
| General requirements | 7.4.1 | | |
| Purchasing information | 7.4.2 | | |
| Verification of purchased product and/or services | 7.4.3 | | |
| Production and service operations | 7.5 | 4.4.6 | Operational control |
| General requirements | 7.5.1 | | |
| Identification and traceability | 7.5.2 | | |
| Customer property | 7.5.3 | | |
| Handling, packaging, storage, preservation and delivery | 7.5.4 | | |
| Validation of processes | 7.5.5 | | |
| Control of measuring and monitoring devices | 7.6 | 4.5.1 | Monitoring and measurement |

| ISO/CD2 9001:2000 | | ISO 14001: 1996 | |
|--|---------|-----------------|---|
| Measurement, analysis and improvement | 8 | 4.5 | Checking and corrective action |
| General requirements | 8.1 | 4.5.1 | Monitoring and measurement |
| Measurement and monitoring | 8.2 | - | - |
| Measurement and monitoring of system performance | 8.2.1 | 4.5.1 | Monitoring and measurement |
| Measurement and monitoring of customer satisfaction | 8.2.1.1 | 4.5.1 | Monitoring and measurement |
| Internal audit | 8.2.1.2 | 4.5.4 | Environmental management system audit |
| Measurement and monitoring of processes | 8.2.2 | 4.5.1 | Monitoring and measurement |
| Measurement and monitoring of product and/or service | 8.2.3 | 4.5.1 | Monitoring and measurement |
| Control of nonconformity | 8.3 | 4.5.2 | Nonconformance and corrective and preventive action |
| General requirements | 8.3.1 | 4.4.7 | Emergency preparedness and response |
| Nonconformity review and disposition | 8.3.2 | 4.5.2 | Nonconformance and corrective and preventive action |
| Analysis of data for improvement | 8.4 | 4.5.1 | Monitoring and measurement |
| Improvement | 8.5 | - | - |
| General requirements | 8.5.1 | 4.2 | Environmental policy |
| Corrective action | 8.5.2 | 4.5.2 | Nonconformance and corrective and preventive action |
| Preventive action | 8.5.3 | 4.5.2 | Nonconformance and corrective and preventive action |

PART 2

AUDIT CHECKLISTS

Section 9

Introduction to the checklists

9.1 General

9.1.1 To achieve compliance with national regulations and standards regarding the safety and health of workers, it is of utmost importance that governments, port authorities and companies operating in a port evaluate and review periodically their management systems and operation relating to their safety and health performance and their ability to respond to incidents. These reviews are also called safety and health audits.

9.1.2 **It should be stressed that, when preparing for and carrying out any type of audit, the auditors must ensure that they are using the latest up-to-date version of the international instruments whose compliance they wish to audit.**

9.2 Type of audits

9.2.1 Port health and safety audits should be divided into three different types of audits. The first can be called “**Initial Audit**”, the second “**Assessment Audit**”, and the third “**Performance Audit**”.

9.2.2 An “**Initial Audit**” can be defined as:

“A systematic and independent examination to determine whether national rules, regulations and standards or written administrative and operational procedures comply with international rules, regulations, standards, guidelines and recommendations or with written administrative and operational procedures”.

9.2.3 The “**Initial Audit**” is directed at establishing whether:

1. The national rules and regulations such as port laws, port by-laws, the Merchant Shipping Act, environmental protection laws, labour protection laws, factory laws, etc., are in compliance with international regulations, guidelines, recommendations and standards;
2. The written administrative and operational procedures of port authorities or port operators cover all national rules, regulations and standards.

It is normally a desktop exercise, which requires considerable time to complete.

9.2.4 An “**Assessment Audit**” can be defined as:

“A systematic and objective activity performed by one or more persons who are independent of the organization or activity audited to find out the extent to which legal requirements or written administrative and operational procedures are fulfilled”.

It is a field audit directed at establishing the actual compliance of port authorities and port operators with national rules, regulations and standards, and their own written administrative and operational procedures.

9.2.5 The “**Initial Audit**” and the “**Assessment Audit**” should be conducted separately, but should be closely linked time-wise. Normally, as soon as the “Initial Audit” is completed, the “Assessment Audit” should follow. However, both may be initiated and conducted together. In this case, the time schedule for the audit should take into account the time needed for the evaluation of the “Initial Audit”.

9.2.6 A “**Performance Audit**” can be defined as:

“A systematic and independent examination to determine whether activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve the objectives defined”.

It is a follow-up audit in the field, conducted to verify that corrective action agreed upon in an action plan has been implemented.

9.3 Use of the checklists

9.3.1 For ease of use, the checklists for ILO Convention No. 152 and Recommendation No. 160 have been prepared in such a way that the text of the instrument containing the requirements is placed on the left-hand page of the manual.

9.3.2 The sample questions that should be asked to verify compliance are placed on the opposite (right-hand) side of the applicable text of the referenced instrument, at the same height in so far as possible, so that the requirement and the corresponding question(s) can be easily identified.

9.3.3 To make the identification easier still, the number of the corresponding article or paragraph is placed against the question.

9.3.4 To further assist auditors in preparing the audit, the checklists also contain information on documentation that should be available when the requirements are met, and which should be used for the desktop exercise and preparation of the audit plan.

9.3.5 As the **CoP** is a bulky document and contains very detailed information (which should first be considered by the competent authorities when setting the standards), some of the checklists for the **CoP** have a different format.

9.3.6 The checklists for **sections 2, 5.1 and 13** of the **CoP** follow the same format as those relating to Convention No. 152 and Recommendation No. 160 (see 9.3.1 to 9.3.4 above).

9.3.7 Since the questions asked by the auditor to verify compliance with the requirements contained in **sections 5.2 to 8** of the **CoP** differ depending on whether they are being put to the competent authority, management/supervisors or portworkers, the sample questions have been grouped accordingly, by interlocutor, without placing the relevant texts against them.

9.3.8 The respective sections of the **CoP**, which should be consulted by the auditor for verification of compliance, are cited under the section headings preceding the groups of questions.

9.3.9 For **sections 3, 4 and 7 to 11** of the **CoP** only the questions and the indications of the paragraphs containing the requirements have been given, without placing the relevant text against them. One reason is that these sections and their subdivisions cover multiple operations on board ship, so that the auditor would ask the same questions for different operations.

9.3.10 Another reason is that these sections contain very detailed requirements, compliance with which is the responsibility of the competent authority or management/supervisor. Therefore, more general questions on the subject are sufficient to establish compliance.

9.3.11 It should be stressed that the questions are only samples. Other questions can be used and should be used when the initial answer does not provide the information required.

9.3.12 When asking a question, however, one should observe the general auditing principle which is never to ask a question such as: "Do you have training records?", which can be answered with a "yes" or "no".

9.3.13 A question should always begin with either **Who, What, Where, When, Why or How** to ensure that the answer contains an explanation.

Example: When asked –“Where are the training records kept?”, the interlocutor has to either state the location, show it, or else state that no such records are kept.

9.3.14 It is recommended that, before carrying out an audit, the auditor should consult **Volume 1: Guidance for Auditors** of the **Port Safety Audit Manual** published by PEMSEA and referred to in the foreword.

9.4 Verification of answers received

9.4.1 Furthermore, it is important to realize that auditors will have to follow up on any documentation or answers received by using their judgement as to what further questions to ask, whom to ask these questions and what spot checks need to be made and verified through investigation and observation in the field itself.

9.4.2 In this connection, the auditor should also compare the answers received on the implementation of one instrument with those obtained for the other two, as all instruments are interrelated.

9.4.3 **Table 5** provides cross references between the three instruments.

Table 5. Cross references between relevant ILO instruments

| Subject matter | C 152 Article | R 160 Paragraph | CoP Section / Paragraph |
|---|---------------|-----------------|-------------------------|
| Application (scope) | 1 | 1 | 1.2 |
| Exemptions and exceptions | 2 | - | - |
| Definition | 3 | 1 | 1.5 |
| National laws and regulations | 4 | - | 2.1.2 |
| National legislation regarding responsible persons | 5 | - | 2.1.10 |
| Consideration of instruments of other international organizations | - | 3 | - |
| Consideration of the CoP | - | 4 | - |
| Consideration of Part III of R160 in addition to Part III of C152 | - | 5 | 1.2 |
| Workers' participation in safety aspects | 6 | - | 2.1.4 |
| Consultation of organizations of employers and workers | 7 | - | 2.1.8 |
| Workplace safety | 8 | - | 3 |
| Lighting | 9 | - | 3.1.3 |
| Surface conditions | 10.1 | - | 3.1.2 |
| Safe work during handling of goods | 10.2 | - | 4 to 8 |
| Safe passageways | 11 | 7 | 3 |
| Fire-fighting means | 12 | - | 11.1.5 |
| Guards on machinery | 13.1 | - | 3.6.6 |
| Emergency shut-off for machinery | 13.2 | - | 3.6.6 |
| Repairs on machinery | 13.3 -13.6 | - | 3.6.6 |
| Electrical equipment and installations | 14 | - | 3.6.4 |
| Avoidance of suspended loads above means of access | 15 | 8.1 | 3.4 / 7.21 |
| Safe access to a ship | 15 | 8.2 | 3.2 to 3.5 / 7.2 |
| Safe access to ro-ro ships | 15 | 8.32 | 3.4.2 / 3.10 |
| Safe transport to and from a ship | 16 | - | 3.4 / 7.1 |
| Safe access to ship's hold or cargo deck | 17 | - | 7.3 |
| Safe handling of hatch covers | 18 | - | 7.4 |
| Protection and guards at any openings | 19.1 | 10.1-.4 | 3.7 / 3.10/ 3.11 7.5 |
| Hatchway safety | 19.2 | 10 | 5.4 / 7.4 |

Table 5. Cross references between relevant ILO instruments (cont'd)

| Subject matter | C 152 Article | R 160 Paragraph | CoP Section / Paragraph |
|---|--------------------------|----------------------------|---|
| Safe working in the hold or on deck with: | 20 | 13 | 7 |
| • power vehicles operating in the hold/on deck | 20.1 | 13 | 7.9.2 / 7.10 |
| • trimming machines or grabs | - | 14.1 | 7.10 |
| • hatch covers and beams | 20.2 | 10.5 | 7.4 |
| Ventilation | 20.3 | - | 6.19.9 / 6.25.2 7.5.2 / 7.9.1 9.1.3 / 9.17 |
| Safe means of escape | 20.4 | 11 | 3.1.4 / 3.1.5 3.7.1 / 4.1.8 6.1.1 / 6.11 11.1.5 / 11.1.7 |
| Construction of lifting appliances, items of loose gear or slings | 21 | 14.2 16 | 4 |
| Testing of lifting appliances and items of loose gear, including slings | 22 | 12 18 | 4.2 |
| Periodical examination and certification of lifting appliances and items of loose gear | 23 | | 4.2 |
| Inspection of items of loose gear before use | 24 | 12 | 5.1.4 |
| Records of tests, examination and inspections of lifting appliances and items of loose gear | 25.1 | - | 4.2.5 |
| Register of lifting appliances and items of loose gear | 25.2 - 3 | - | 4.2.5 |
| Mutual recognition of competent authorities for the testing, thorough examination, inspection and certification of lifting appliances and items of loose gear | 26 | - | - |
| Visual identification of safe working loads | 27 | - | 4.1.4 |
| Rigging plans on board ships | 28 | - | 4.3.1 / 5.2.2 |
| Construction of pallets and similar devices | 29 | 20 | 5.3.3 |
| Raising or lowering of loads | 30 | 21 | |
| Layout of container terminals | 31.1 | | 3.8 / 6.14 |
| Safety of workers during lashing and unlashings of containers | 31.2 | 22 | 4.2.5 / 6.3.5 |

Table 5. Cross references between relevant ILO instruments (cont'd)

| Subject matter | C 152 Article | R 160 Paragraph | CoP Section / Paragraph |
|---|--------------------------|----------------------------|--|
| Dangerous cargoes | 32 | 23 | 8 |
| • Packaging, marking, labeling, handling, storage and stowing | 32.1 - 2 | - | 8.1 |
| • Damaged receptacles | 32.3 | - | 8.4 |
| • Toxic and harmful substances or agents or hazardous atmosphere | 32.4 | - | 8.2 to 8.4 |
| • Entry into confined spaces | 32.5 | - | 6.25 |
| Lifting equipment to be marked with its own weight | - | 19 | 4 |
| Lifting of loads secured together | - | 21 | - |
| Emergency escapes from lifting appliances | - | 25 | 4.1.8 |
| Use of dunnage | - | 17.2 | 5.3.2 |
| Excessive noise | 33 | - | 9.1.5 |
| Protective clothing and equipment | 34 | - | 2.1.7 / 6.1.6 6.24 |
| Provision of first aid | 35 | 24 | 9.2 |
| Medical examination | 36 | 26 | 9.1 / 9.2 |
| Safety and health committees | 37 | - | 2.4.2 |
| Training of dockworkers | 38.1 | 6 | 2.6 |
| Minimum requirements for operators of lifting and other cargo-handling appliances | 38.2 | - | 2.6 / 5.1.3 |
| Reporting and investigation of occupational accidents and diseases | 39 | - | 2.5 |
| Sanitary and washing facilities | 40 | - | 10.2 / 10.3 |
| Changing rooms | - | 27 | 10.3 |
| Implementation, penalties and inspection services | 41 | - | - |
| Time-limits related to the application of the Convention in respect of ship and shore equipment | 42 | - | - |

SECTION 10

**Audit checklist for the Occupational Safety and Health
(Dock Work) Convention, 1979**

The numbers in column 3 refer to the relevant provisions of the Occupational Safety and Health (Dock Work) Convention, 1979 (C152), which stipulate the standards to be checked against

Part I. Scope and Definitions

Article 1

For the purpose of this Convention, the term **dock work** covers all and any part of the work of loading or unloading any ship as well as any work incidental thereto; the definition of such work shall be established by national law or practice. The organisations of employers and workers concerned shall be consulted on or otherwise participate in the establishment and revision of this definition.

.....

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour law, including explanations thereof*
-

Article 2

1. A Member may grant exemptions from or permit exceptions to the provisions of this Convention in respect of dock work at any place where the traffic is irregular and confined to small ships, as well as in respect of dock work in relation to fishing vessels or specified categories thereof, on condition that

- (a) safe working conditions are maintained; and
 - (b) the competent authority, after consultation with the organisations of employers and workers concerned, is satisfied that it is reasonable in all the circumstances that there be such exemptions or exceptions.
-

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour law, including explanations thereof*
-

| No. | Question | Reference | Auditor's findings |
|-----|---|-----------|--------------------|
| 1.1 | Where is the term "dock work" defined? | Article 1 | |
| 1.2 | Who participated in the development of the definition of "dock work"? | Article 1 | |

| | | | |
|-----|--|-------------|--|
| 2.1 | What exemptions have been granted from the provisions of this Convention? | Article 2.1 | |
| 2.2 | What exception permits from the provisions of this Convention have been granted? | Article 2.1 | |

| | | | |
|----|--|-----------------|--|
| 3. | How are safe working conditions guaranteed for those areas where exemptions or exceptions have been granted? | Article 2.1 (a) | |
|----|--|-----------------|--|

| | | | |
|----|--|-----------------|--|
| 4. | How did the competent authority establish that it is reasonable to grant exemptions or exceptions? | Article 2.1 (b) | |
|----|--|-----------------|--|

Article 2 (cont'd)

2. Particular requirements of Part III of this Convention may be varied if the competent authority is satisfied, after consultation with the organisations of employers and workers concerned, that the variations provide corresponding advantages and that the over-all protection afforded is not inferior to that which would result from the full application of the provisions of this Convention.

What evidence to look for with respect to the desktop exercise:

Legislation

National labour law, including explanations thereof

Other

- *Ministry of Labour records*
- *Records of the Ministry of Transport or other relevant ministry*

3. Any exemptions or exceptions made under paragraph 1 of this Article and any significant variations made under paragraph 2 of this Article, as well as the reasons therefor, shall be indicated in the reports on the application of the Convention submitted in pursuance of article 22 of the Constitution of the International Labour Organisation.

What evidence to look for with respect to the desktop exercise:

- *Ministry of Labour records*
-

| No. | Question | Reference | Auditor's findings |
|-----|---|-------------|--------------------|
| 5.1 | What variations from particular requirements of Part III of the Convention have been approved by the competent authority? | Article 2.2 | |
| 5.2 | How did the competent authority satisfy itself that the variations provided corresponding advantages? | Article 2.2 | |
| 5.3 | How did the competent authority ensure that the overall protection afforded is not inferior to that which would result from the full application of the provisions of the Convention? | Article 2.2 | |

| | | | |
|------|--|-------------|--|
| 6.1* | Where are reports kept of exemptions or exceptions made under paragraph 1 of Article 2 and significant variations made under paragraph 2 of Article 2? | Article 2.3 | |
| 6.2* | When have these reports been submitted to the ILO? | Article 2.3 | |

* **Note:** Questions 6.1 and 6.2 are only applicable when the audit is conducted at government level

Article 3

For the purpose of this Convention--

- (a) the term **worker** means any person engaged in dock work;
- (b) the term **competent person** means a person possessing the knowledge and experience required for the performance of a specific duty or duties and acceptable as such to the competent authority;
- (c) the term **responsible person** means a person appointed by the employer, the master of the ship or the owner of the gear, as the case may be, to be responsible for the performance of a specific duty or duties and who has sufficient knowledge and experience and the requisite authority for the proper performance of the duty or duties;
- (d) the term **authorised person** means a person authorised by the employer, the master of the ship or a responsible person to undertake a specific task or tasks and possessing the necessary technical knowledge and experience;
- (e) the term **lifting appliance** covers all stationary or mobile cargo-handling appliances, including shore-based power-operated ramps, used on shore or on board ship for suspending, raising or lowering loads or moving them from one position to another while suspended or supported;
- (f) the term **loose gear** covers any gear by means of which a load can be attached to a lifting appliance but which does not form an integral part of the appliance or load;
- (g) the term **access** includes egress;
- (h) the term **ship** covers any kind of ship, vessel, barge, lighter or hovercraft, excluding ships of war.

.....

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour law, including explanations thereof*
 - *National labour safety regulations*
-

| No. | Question | Reference | Auditor's findings |
|-----|---|-----------|--------------------|
| 7.1 | Which definitions given in the Convention have been included in the national legislation? | Article 3 | |
| 7.2 | What are the definitions used in the national legislation? | Article 3 | |

Part II. General Provisions

Article 4

1. National laws or regulations shall prescribe that measures complying with Part III of this Convention be taken as regards dock work with a view to--

- (a) providing and maintaining workplaces, equipment and methods of work that are safe and without risk of injury to health;
 - (b) providing and maintaining safe means of access to any workplace;
 - (c) providing the information, training and supervision necessary to ensure the protection of workers against risks of accident or injury to health arising out of or in the course of their employment;
 - (d) providing workers with any personal protective equipment and protective clothing and any life-saving appliances reasonably required where adequate protection against risks of accident or injury to health cannot be provided by other means;
 - (e) providing and maintaining suitable and adequate first-aid and rescue facilities;
 - (f) developing and establishing proper procedures to deal with any emergency situations which may arise.
-

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour law, including explanations thereof*
 - *National labour safety regulations*
-

| No. | Question | Reference | Auditor's findings |
|-----|--|-------------|--------------------|
| 8.1 | What measures are stipulated in the national laws or regulations to ensure compliance with Part III of the Convention? | Article 4.1 | |
| 8.2 | What reasons are given in the national laws or regulations for stipulating safety measures? | Article 4.1 | |

Article 4 (cont'd)

2. The measures to be taken in pursuance of this Convention shall cover--
- (a) general requirements relating to the construction, equipping and maintenance of dock structures and other places at which dock work is carried out;
 - (b) fire and explosion prevention and protection;
 - (c) safe means of access to ships, holds, staging, equipment and lifting appliances;
 - (d) transport of workers;
 - (e) opening and closing of hatches, protection of hatchways and work in holds;
 - (f) construction, maintenance and use of lifting and other cargo-handling appliances;
 - (g) construction, maintenance and use of staging;
 - (h) rigging and use of ship's derricks;
 - (i) testing, examination, inspection and certification, as appropriate, of lifting appliances, of loose gear, including chains and ropes, and of slings and other lifting devices which form an integral part of the load;
 - (j) handling of different types of cargo;
 - (k) stacking and storage of goods;
 - (l) dangerous substances and other hazards in the working environment;
 - (m) personal protective equipment and protective clothing;
 - (n) sanitary and washing facilities and welfare amenities;
 - (o) medical supervision;
 - (p) first-aid and rescue facilities;
 - (q) safety and health organisation;
 - (r) training of workers;
 - (s) notification and investigation of occupational accidents and diseases.

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour law, including explanations thereof*
- *National labour safety regulations*

-
3. The practical implementation of the requirements prescribed in pursuance of paragraph 1 of this Article shall be ensured or assisted by technical standards or codes of practice approved by the competent authority, or by other appropriate methods consistent with national practice and conditions.

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour law, including explanations thereof*
- *National labour safety regulations*

Other

- *Applicable national standards such as construction standards, fire protection standards, etc.*

| No. | Question | Reference | Auditor's findings |
|-----|--|-------------|--------------------|
| 9. | What areas are covered by the measures stipulated in the national laws or regulations? | Article 4.2 | |

| | | | |
|------|--|-------------|--|
| 10.1 | How is practical implementation of the requirements prescribed in pursuance of paragraph 1 of Article 4 ensured? | Article 4.3 | |
| 10.2 | How many codes of practice have been approved by the competent authority? | Article 4.3 | |
| 10.3 | What technical standards are available with regard to practical implementation? | Article 4.3 | |
| 10.4 | What other appropriate methods consistent with national practice and conditions are available with regard to practical implementation? | Article 4.3 | |
| 10.5 | What national technical standards or other appropriate methods or practices are available? | Article 4.3 | |

Article 5

1. National laws or regulations shall make appropriate persons, whether employers, owners, masters or other persons, as the case may be, responsible for compliance with the measures referred to in Article 4, paragraph 1, of this Convention.

.....

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour law, including explanations thereof*
- *National labour safety regulations*

2. Whenever two or more employers undertake activities simultaneously at one workplace, they shall have the duty to collaborate in order to comply with the prescribed measures, without prejudice to the responsibility of each employer for the safety and health of his employees. In appropriate circumstances, the competent authority shall prescribe general procedures for this collaboration.

.....

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour safety regulations*

Other

- *Circulars of the competent authority*
-

Article 6

1. There shall be arrangements under which workers--

- (a) are required neither to interfere without due cause with the operation of, nor to misuse, any safety device or appliance provided for their own protection or the protection of others;
- (b) take reasonable care for their own safety and that of other persons who may be affected by their acts or omissions at work;
- (c) report forthwith to their immediate supervisor any situation which they have reason to believe could present a risk and which they cannot correct themselves, so that corrective measures can be taken.

.....

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour safety regulations*

Other

- *Circulars of the competent authority*
 - *Company manuals and instructions*
-

| No. | Question | Reference | Auditor's findings |
|------|---|-------------|--------------------|
| 11.1 | Where are the responsibilities for compliance with the measures referred to in paragraph 1 of Article 4 stipulated? | Article 5.1 | |
| 11.2 | Who is responsible for compliance with the measures referred to in paragraph 1 of Article 4? | Article 5.1 | |

| | | | |
|------|--|-------------|--|
| 12.1 | How is effective collaboration between two or more employers undertaking activities simultaneously at one workplace ensured with regard to compliance with safety and health regulations? | Article 5.2 | |
| 12.2 | What general procedures have been prescribed by the competent authority with regard to collaboration between two or more employers undertaking activities simultaneously at one workplace? | Article 5.2 | |

| | | | |
|------|---|-----------------|--|
| 13.1 | How is it ensured that workers neither interfere without due cause with the operation of, nor misuse, any safety device or appliance provided for their own protection or the protection of others? | Article 6.1 (a) | |
| 13.2 | What arrangements are in place to ensure that workers take reasonable care for their own safety and that of other persons who may be affected by their acts or omissions at work? | Article 6.1 (b) | |
| 13.3 | What reporting procedures are in place? | Article 6.1 (c) | |

Article 6 (cont'd)

2. Workers shall have a right at any workplace to participate in ensuring safe working to the extent of their control over the equipment and methods of work and to express views on the working procedures adopted as they affect safety. In so far as appropriate under national law and practice, where safety and health committees have been formed in accordance with Article 37 of this Convention, this right shall be exercised through these committees.

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour safety regulations*

Other

- *Circulars of the competent authority*
 - *Company manuals and instructions*
-

Article 7

1. In giving effect to the provisions of this Convention by national laws or regulations or other appropriate methods consistent with national practice and conditions, the competent authority shall act in consultation with the organisations of employers and workers concerned.

What evidence to look for with respect to the desktop exercise:

Legislation

- *National laws*
 - *National labour safety regulations*
-

2. Provision shall be made for close collaboration between employers and workers or their representatives in the application of the measures referred to in Article 4, paragraph 1, of this Convention.

What evidence to look for with respect to the desktop exercise:

Legislation

- *National laws*
- *National labour safety regulations*

Other

- *Records of meetings of the competent authority*

| No. | Question | Reference | Auditor's findings |
|------|--|-------------|--------------------|
| 14.1 | How do workers and their representatives participate in ensuring safe working to the extent of their control over the equipment and methods of work? | Article 6.2 | |
| 14.2 | How can workers and their representatives express views on the working procedures? | Article 6.2 | |
| 14.3 | How often does the safety and health committee meet? | Article 6.2 | |

| | | | |
|------|--|-------------|--|
| 15.1 | How did the organizations of employers and workers concerned participate in the development of those national laws or regulations or other appropriate methods consistent with national practice and conditions which implement the provisions of this Convention? | Article 7.1 | |
| 15.2 | What is the normal practice with regard to the participation of industry and labour representatives in the legislative process? | Article 7.1 | |

| | | | |
|------|---|-------------|--|
| 16.1 | What are the provisions for close collaboration between employers and workers or their representatives in applying the measures referred to in Article 4, paragraph 1, of the Convention? | Article 7.2 | |
| 16.2 | How is close collaboration ensured between employers and workers or their representatives in applying the measures referred to in Article 4, paragraph 1, of the Convention? | Article 7.2 | |

Part III. Technical Measures

Article 8

Any time that a workplace has become unsafe or there is a risk of injury to health, effective measures shall be taken (by fencing, flagging or other suitable means including, where necessary, cessation of work) to protect the workers until the place has been made safe again.

.....

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
-

Article 9

1. All places where dock work is being carried out and any approaches thereto shall be suitably and adequately lighted.
 2. Any obstacle liable to be dangerous to the movement of a lifting appliance, vehicle or person shall, if it cannot be removed for practical reasons, be suitably and conspicuously marked and, where necessary, adequately lighted.
-

What evidence to look for with respect to the desktop exercise:

- *Port plans*
 - *Company manuals and instructions*
-

Article 10

1. All surfaces used for vehicle traffic or for the stacking of goods or materials shall be suitable for the purpose and properly maintained.
2. Where goods or materials are stacked, stowed, unstacked or unstowed, the work shall be done in a safe and orderly manner having regard to the nature of the goods or materials and their packing.

What evidence to look for with respect to the desktop exercise:

- *Port plans*
- *Company manuals and instructions*
- *Maintenance records*

| No. | Question | Reference | Auditor's findings |
|------|---|-----------|--------------------|
| 17.1 | What measures are taken to protect the workers when a workplace has become unsafe or there is a risk of injury to health? | Article 8 | |
| 17.2 | How long do such measures last? | Article 8 | |

| | | | |
|------|---|-------------|--|
| 18.1 | How is suitable and adequate lighting ensured in all workplaces and approaches thereto? | Article 9.1 | |
| 18.2 | What type of markings and lights are used to clearly identify any obstacles? | Article 9.2 | |

| | | | |
|------|--|--------------|--|
| 19.1 | What types of surfaces are used for vehicle traffic areas? | Article 10.1 | |
| 19.2 | What types of surfaces are used for the stacking of goods or materials? | Article 10.1 | |
| 19.3 | How do you ensure proper maintenance of surfaces used for traffic or for the stacking of goods or materials? | Article 10.1 | |
| 19.4 | Where do you keep the maintenance records for surfaces used for vehicle traffic or for the stacking of goods or materials? | Article 10.1 | |
| 19.5 | What safety procedures are in place for stacking, stowage, unstacking or unstowing of goods or materials? | Article 10.2 | |

Article 11

1. Passageways of adequate width shall be left to permit the safe use of vehicles and cargo-handling appliances.
 2. Separate passageways for pedestrian use shall be provided where necessary and practicable; such passageways shall be of adequate width and, as far as is practicable, separated from passageways used by vehicles.
-

What evidence to look for with respect to the desktop exercise:

- *Port and plant plans*
 - *Company manuals and instructions*
-

Article 12

Suitable and adequate means for fighting fire shall be provided and kept available for use where dock work is carried out.

.....

What evidence to look for with respect to the desktop exercise:

- *Emergency plans*
 - *Port and plant plans*
-

Article 13

1. All dangerous parts of machinery shall be effectively guarded, unless they are in such a position or of such a construction as to be as safe as they would be if effectively guarded.
 2. Effective measures shall be provided for promptly cutting off the power to any machinery in respect of which this is necessary, in an emergency.
 3. When any cleaning, maintenance or repair work that would expose any person to danger has to be undertaken on machinery, the machinery shall be stopped before this work is begun and adequate measures shall be taken to ensure that the machinery cannot be restarted until the work has been completed: Provided that a responsible person may restart the machinery for the purpose of any testing or adjustment which cannot be carried out while the machinery is at rest.
-

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
 - *Machinery drawings and instructions*
-

| No. | Question | Reference | Auditor's findings |
|------|---|--------------|--------------------|
| 20.1 | What is the normal width of passageways provided to protect the workers when a workplace has become unsafe or when there is a risk of injury to health? | Article 11.1 | |
| 20.2 | How do you separate passageways for pedestrians from those for vehicles? | Article 11.2 | |

| | | | |
|-----|---|------------|--|
| 21. | What fire-fighting means are available? | Article 12 | |
|-----|---|------------|--|

| | | | |
|------|---|--------------|--|
| 22.1 | How are dangerous parts of machinery effectively guarded? | Article 13.1 | |
| 22.2 | What measures are provided for promptly cutting off the power to any machinery in an emergency? | Article 13.2 | |
| 22.3 | What procedures are in place to stop machinery before commencing cleaning, maintenance or repair work on such machinery that would expose any person to danger? | Article 13.3 | |
| 22.4 | How is it ensured that the machinery cannot be restarted until the work has been completed? | Article 13.3 | |

Article 13 (cont'd)

4. Only an authorised person shall be permitted to--
- (a) remove any guard where this is necessary for the purpose of the work being carried out;
 - (b) remove a safety device or make it inoperative for the purpose of cleaning, adjustment or repair.
5. If any guard is removed, adequate precautions shall be taken, and the guard shall be replaced as soon as practicable.
6. If any safety device is removed or made inoperative, the device shall be replaced or its operation restored as soon as practicable and measures shall be taken to ensure that the relevant equipment cannot be used or inadvertently started until the safety device has been replaced or its operation restored.
7. For the purpose of this Article, the term ***machinery*** includes any lifting appliance, mechanised hatch cover or power-driven equipment.
-

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
-

Article 14

All electrical equipment and installations shall be so constructed, installed, operated and maintained as to prevent danger and shall conform to such standards as have been recognised by the competent authority.

.....

What evidence to look for with respect to the desktop exercise:

- *National standards*
 - *Company manuals and instructions*
 - *Machinery drawings and instructions*
-

Article 15

When a ship is being loaded or unloaded alongside a quay or another ship, adequate and safe means of access to the ship, properly installed and secured, shall be provided and kept available.

.....

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
-

| No. | Question | Reference | Auditor's findings |
|------|---|-------------------------|--------------------|
| 22.5 | Who is permitted to remove guards for the purpose of carrying out necessary work? | Article 13.4 (a) | |
| 22.6 | Who is permitted to remove a safety device or make it inoperative for the purpose of cleaning, adjustment or repair? | Article 13.4 (b) | |
| 22.7 | How do you select persons that are authorized to remove guards or safety devices? | Article 13.4 (a + b) | |
| 22.8 | How do you ensure that adequate precautions are taken if a guard is removed, and that the guard is replaced as soon as practicable? | Article 13.5 | |
| 22.9 | What measures are in place to ensure that equipment cannot be used or inadvertently started if a safety device has been removed? | Article 13.6 | |

| | | | |
|------|--|------------|--|
| 23.1 | How do you ensure that all electrical equipment and installations are properly operated and maintained so as to prevent danger? | Article 14 | |
| 23.2 | How do you ensure that all electrical equipment and installations comply with the standards recognized by the competent authority? | Article 14 | |
| 24.1 | How do you ensure adequate and safe means of access to the ship? | Article 15 | |
| 24.2 | How do you ensure that the means of access to the ship are properly installed and secured at all times? | Article 15 | |

Article 16

1. When workers have to be transported to or from a ship or other place by water, adequate measures shall be taken to ensure their safe embarking, transport and disembarking; the conditions to be complied with by the vessels used for this purpose shall be specified.
 2. When workers have to be transported to or from a workplace on land, means of transport provided by the employer shall be safe.
-

What evidence to look for with respect to the desktop exercise:

Legislation

- *National ship safety regulations*
- *Road vehicle safety regulations*

Other

- *Company manuals and instructions*
 - *Safety certificates*
-

Article 17

1. Access to a ship's hold or cargo deck shall be by means of--
 - (a) a fixed stairway or, where this is not practicable, a fixed ladder or cleats or cups of suitable dimensions, of adequate strength and proper construction; or
 - (b) by other means acceptable to the competent authority.
 2. So far as is reasonably practicable, the means of access specified in this Article shall be separate from the hatchway opening.
 3. Workers shall not use, or be required to use, any other means of access to a ship's hold or cargo deck than those specified in this Article.
-

What evidence to look for with respect to the desktop exercise:

- *Circulars and permits issued by the competent authority*
 - *Company manuals and instructions*
-

| No. | Question | Reference | Auditor's findings |
|------|---|---------------------|--------------------|
| 25.1 | What safety precautions are taken to ensure safe embarking, transport and disembarking when workers have to be transported to or from a ship or other place by water? | Article 16.1 | |
| 25.2 | What are the minimum standards (construction and equipment) for vessels transporting workers from or to a ship or over water? | Article 16.1 | |
| 25.3 | Who specifies the minimum standards? | Article 16.1 | |
| 25.4 | How do you ensure that adequate precautions are taken if any railing or other means of preventing falls is removed, and that it is replaced as soon as practicable? | Article 16.2 | |
| 26.1 | What means of access do you provide to a ship's hold or cargo deck? | Article 17.1 (a) | |
| 26.2 | What are the minimum safety standards applicable for access to a ship's hold or cargo deck? | Article 17.1 (a) | |
| 26.3 | What means of access to a ship's hold or cargo deck are accepted by the competent authority? | Article 17.1 (b) | |
| 26.4 | How do you ensure that the means of access are, so far as is reasonably practicable, separate from the hatchway opening? | Article 17.2 | |
| 26.5 | What precautions are taken that workers do not use, or are not required to use, any other means of access to a ship's hold or cargo deck than those specified by regulations or competent authority's specifications? | Article 17.3 | |

Article 18

1. No hatch cover or beam shall be used unless it is of sound construction, of adequate strength for the use to which it is to be put and properly maintained.
 2. Hatch covers handled with the aid of a lifting appliance shall be fitted with readily accessible and suitable attachments for securing the slings or other lifting gear.
 3. Where hatch covers and beams are not interchangeable, they shall be kept plainly marked to indicate the hatch to which they belong and their position therein.
 4. Only an authorised person (whenever practicable a member of the ship's crew) shall be permitted to open or close power-operated hatch covers; the hatch covers shall not be opened or closed while any person is liable to be injured by the operation of the covers.
 5. The provisions of paragraph 4 of this Article shall apply, mutatis mutandis, to power-operated ship's equipment such as a door in the hull of a ship, a ramp, a retractable car deck or similar equipment.
-

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
-

Article 19

1. Adequate measures shall be taken to protect any opening in or on a deck where workers are required to work, through which opening workers or vehicles are liable to fall.
 2. Every hatchway not fitted with a coaming of adequate height and strength shall be closed or its guard replaced when the hatchway is no longer in use, except during short interruptions of work, and a responsible person shall be charged with ensuring that these measures are carried out.
-

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
-

| No. | Question | Reference | Auditor's findings |
|------|---|--------------|--------------------|
| 27.1 | How do you ensure that a hatch cover or beam is of sound construction, of adequate strength and properly maintained? | Article 18.1 | |
| 27.2 | What is the procedure if a ship does not have hatch covers fitted with readily accessible and suitable attachments for securing the slings or other lifting gear? | Article 18.1 | |
| 27.3 | Who is responsible for marking hatch covers and beams that are not interchangeable to indicate the hatch to which they belong and their position therein? | Article 18.3 | |
| 27.4 | Who is permitted to open or close power-operated hatch covers? | Article 18.4 | |
| 27.5 | How do you ensure that hatch covers are not opened or closed while any person is liable to be injured by the operation of the covers? | Article 18.4 | |

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|------|---|--------------|--|
| 28.1 | How do you protect workers or vehicles from falling into a hold through openings in or on a deck? | Article 19.1 | |
| 28.2 | What procedures are in place if a hatchway is not fitted with a coaming of adequate height and strength? | Article 19.2 | |
| 28.3 | Who is the responsible person charged with ensuring compliance with the procedures regarding hatchways not fitted with a coaming of adequate height and strength? | Article 19.2 | |

Article 20

1. All necessary measures shall be taken to ensure the safety of workers required to be in the hold or on a cargo deck of a ship when power vehicles operate in that hold or loading or unloading operations are taking place with the aid of power-operated appliances.
2. Hatch covers and beams shall not be removed or replaced while work is in progress in the hold under the hatchway. Before loading or unloading takes place, any hatch cover or beam that is not adequately secured against displacement shall be removed.
3. Adequate ventilation shall be provided in the hold or on a cargo deck by the circulation of fresh air to prevent risks of injury to health arising from the fumes emitted by internal combustion engines or from other sources.
4. Adequate arrangements, including safe means of escape, shall be made for the safety of persons when dry bulk cargo is being loaded or unloaded in any hold or 'tween deck or when a worker is required to work in a bin or hopper on board ship.

.....
What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
-

| No. | Question | Reference | Auditor's findings |
|-------------|--|---------------------|---------------------------|
| 29.1 | What operational safety and health measures have to be taken when power vehicles operate in the ship's hold or on its cargo deck or when loading or unloading operations are taking place with the aid of power-operated appliances? | Article 20.1 | |
| 29.2 | What safety procedures are in place while work is in progress in the hold under the hatchway? | Article 20.2 | |
| 29.3 | Who checks that hatch covers or beams are adequately secured against displacement, before work commences in the hold under the hatchway? | Article 20.2 | |
| 29.4 | What type of ventilation is provided in the hold or on a cargo deck to prevent risks of injury to health arising from the fumes emitted by internal combustion engines or from other sources? | Article 20.3 | |
| 29.5 | What personnel safety measures are taken when dry bulk cargo is being loaded or unloaded in any hold or 'tween deck? | Article 20.4 | |
| 29.6 | What safety measures are taken when a worker is required to work in a bin or hopper on board ship? | Article 20.4 | |
| | | | |

Article 21

Every lifting appliance, every item of loose gear and every sling or lifting device forming an integral part of a load shall be--

- (a) of good design and construction, of adequate strength for the purpose for which it is used, maintained in good repair and working order and, in the case of a lifting appliance in respect of which this is necessary, properly installed;
- (b) used in a safe and proper manner and, in particular, shall not be loaded beyond its safe working load or loads, except for testing purposes as specified and under the direction of a competent person.

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
 - *Equipment certificates*
 - *Maintenance records*
-

Article 22

1. Every lifting appliance and every item of loose gear shall be tested in accordance with national laws or regulations by a competent person before being put into use for the first time and after any substantial alteration or repair to any part liable to affect its safety.
2. Lifting appliances forming part of a ship's equipment shall be retested at least once in every five years.
3. Shore-based lifting appliances shall be retested at such times as prescribed by the competent authority.
4. Upon the completion of every test of a lifting appliance or item of loose gear carried out in accordance with this Article, the appliance or gear shall be thoroughly examined and certified by the person carrying out the test.

What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour and factory laws*
- *Labour safety regulations and standards*

Other

- *Company manuals and instructions*
 - *Equipment certificates*
 - *Maintenance records*
 - *Inspection reports*
-

| No. | Question | Reference | Auditor's findings |
|------|--|------------------------------|--------------------|
| 30.1 | <p>Who verifies that lifting appliances, loose gear and slings or lifting devices forming an integral part of a load are:</p> <ul style="list-style-type: none"> • of good design and construction; • of adequate strength for the purpose for which they are used; • maintained in good repair and working order; and • properly installed (where necessary, in the case of a lifting appliance)? | Article 21 (a) | |
| 30.2 | <p>How is it ensured that lifting appliances, loose gear and slings or lifting devices forming an integral part of a load:</p> <ul style="list-style-type: none"> • are used in a safe and proper manner; and • are not loaded beyond their safe working load or loads? | Article 21 (b) | |
| 30.3 | <p>Who are the competent persons that supervise the testing of lifting appliances, loose gear and slings or lifting devices forming an integral part of a load?</p> | Article 21 (b) | |
| 31.1 | <p>What are the national laws or regulations regarding testing and retesting of lifting appliances and loose gear and retesting of shore-based lifting appliances?</p> | Article 22.1 and 22.3 | |
| 31.2 | <p>Who verifies that lifting appliances forming part of a ship's equipment have been retested at least once in every five years?</p> | Article 22.2 | |
| 31.3 | <p>Where are the certificates of lifting appliances and loose gear kept?</p> | Article 22.4 | |

Article 23

1. In addition to the requirements of Article 22, every lifting appliance and every item of loose gear shall be periodically thoroughly examined and certified by a competent person. Such examinations shall take place at least once in every 12 months.
2. For the purpose of paragraph 4 of Article 22 and of paragraph 1 of this Article, a thorough examination means a detailed visual examination by a competent person, supplemented if necessary by other suitable means or measures in order to arrive at a reliable conclusion as to the safety of the appliance or item of loose gear examined.

What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour and factory laws*
- *Labour safety regulations and standards*

Other

- *Equipment certificates*
 - *Inspection reports*
-

Article 24

1. Every item of loose gear shall be inspected regularly before use. Expendable or disposable slings shall not be reused. In the case of pre-slung cargoes, the slings shall be inspected as frequently as is reasonably practicable.
2. For the purpose of paragraph 1 of this Article, an inspection means a visual inspection by a responsible person carried out to decide whether, so far as can be ascertained in such manner, the gear or sling is safe for continued use.

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
 - *Inspection reports*
-

| No. | Question | Reference | Auditor's findings |
|------|--|--------------|--------------------|
| 32.1 | How often are your lifting appliances and items of loose gear thoroughly examined? | Article 23.1 | |
| 32.2 | Who has certified these inspections? | Article 23.1 | |
| 32.3 | Where are the examination records kept? | Article 23.1 | |
| 32.4 | How was the periodic examination of the appliance or item of loose gear conducted? | Article 23.2 | |

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|------|--|--------------|--|
| 33.1 | Who inspects loose gear before use? | Article 24.1 | |
| 33.2 | How often are slings inspected? | Article 24.1 | |
| 33.3 | What is done with expendable or disposable slings? | Article 24.1 | |
| 33.4 | Who inspects slings before use? | Article 24.2 | |
| 33.5 | What are his/her qualifications? | Article 24.2 | |

Article 25

1. Such duly authenticated records as will provide prima facie evidence of the safe condition of the lifting appliances and items of loose gear concerned shall be kept, on shore or on the ship as the case may be; they shall specify the safe working load and the dates and results of the tests, thorough examinations and inspections referred to in Articles 22, 23 and 24 of this Convention: Provided that in the case of inspections referred to in paragraph 1 of Article 24 of this Convention, a record need only be made where the inspection discloses a defect.

2. A register of the lifting appliances and items of loose gear shall be kept in a form prescribed by the competent authority, account being taken of the model recommended by the International Labour Office.

3. The register shall comprise certificates granted or recognised as valid by the competent authority, or certified true copies of the said certificates, in a form prescribed by the competent authority, account being taken of the models recommended by the International Labour Office in respect of the testing, thorough examination and inspection, as the case may be, of lifting appliances and items of loose gear.

What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour and factory laws*
- *Labour safety regulations and standards*

Other

- *Cargo gear register*
 - *Equipment certificates*
-

| No. | Question | Reference | Auditor's findings |
|------|--|--------------|--------------------|
| 34.1 | What is stated in the examination records? | Article 25.1 | |
| 34.2 | When was the last examination carried out? | Article 25.1 | |
| 34.3 | Where are the records kept? | Article 25.1 | |

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|------|---|--------------|--|
| 35.1 | Where do you keep the register of lifting appliances and items of loose gear? | Article 25.2 | |
| 35.2 | What form is prescribed by the competent authority with regard to the register of lifting appliances and items of loose gear? | Article 25.2 | |

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|------|---|--------------|--|
| 36.1 | What certificates are kept in the register of lifting appliances and items of loose gear: <ul style="list-style-type: none"> • original certificates, or • certified true copies? | Article 25.3 | |
| 36.2 | What form is prescribed by the competent authority for the certificates of lifting appliances and items of loose gear? | Article 25.3 | |

Article 26

1. With a view to ensuring the mutual recognition of arrangements made by Members which have ratified this Convention for the testing, thorough examination, inspection and certification of lifting appliances and items of loose gear forming part of a ship's equipment and of the records relating thereto--

- (a) the competent authority of each Member which has ratified the Convention shall appoint or otherwise recognise competent persons or national or international organisations to carry out tests and/or thorough examinations and related functions, under conditions that ensure that the continuance of appointment or recognition depends upon satisfactory performance;
- (b) Members which have ratified the Convention shall accept or recognise those appointed or otherwise recognised pursuant to subparagraph (a) of this paragraph, or shall enter into reciprocal arrangements with regard to such acceptance or recognition; in either case, acceptance or recognition shall be under conditions that make their continuance dependent upon satisfactory performance.

.....
What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour and factory laws*
- *Labour safety regulations and standards*
- *Government circulars or notices*

Other

- *Correspondence records of the competent authority*
 - *Agreements with other governments*
 - *Agreements with recognized organizations*
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| No. | Question | Reference | Auditor's findings |
|-------|--|------------------------|--------------------|
| 37.1* | Which persons or national or international organizations have been appointed by the competent authority to carry out tests and/or thorough examinations and related functions? | Article 26.1 (a) | |
| 37.2* | What are their qualifications? | Article 26.1 (a) | |
| 37.3* | Where do you keep agreements with national or international organizations that have been appointed by the competent authority to carry out tests and/or thorough examinations and related functions? | Article 26.1 (a) | |
| 37.4* | How does the competent authority monitor the performance of the appointed persons or national or international organizations? | Article 26.1 (a) + (b) | |
| 37.5* | What reciprocal arrangements have been entered into with regard to acceptance or recognition of persons or organizations recognized by other members of the Convention? | Article 26.1 (b) | |
| 37.6* | Where are the agreements with other governments kept? | Article 26.1 (b) | |

* **Note:** Questions 37.1 to 37.6 are only applicable when the audit is conducted at government level

Article 26 (cont'd)

2. No lifting appliance, loose gear or other cargo-handling appliances shall be used if--
- (a) the competent authority is not satisfied by reference to a certificate of test or examination or to an authenticated record, as the case may be, that the necessary test, examination or inspection has been carried out in accordance with the provisions of this Convention; or
 - (b) in the view of the competent authority, the appliance or gear is not safe for use.

What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour and factory laws*
- *Labour safety regulations and standards*

Other

- *Correspondence records of the competent authority*
- *Company procedures*
- *Company records*
- *Cargo-handling records (for paragraph 3)*

-
3. Paragraph 2 of this Article shall not be so applied as to cause delay in loading or unloading a ship where equipment satisfactory to the competent authority is used.

| No. | Question | Reference | Auditor's findings |
|-------|---|---------------------|--------------------|
| 38.1 | How do you verify that lifting appliances, loose gear or other cargo-handling appliances to be used have passed the necessary test, examination or inspection to the satisfaction of the competent authority in accordance with the provisions of the Convention? | Article 26.2 (a) | |
| 38.2 | How do you ensure that lifting appliances, loose gear or other cargo-handling appliances are not used when there is no evidence that they have passed the prescribed tests successfully? | Article 26.2 (a) | |
| 38.3 | How do you know that, in the view of the competent authority, the appliance or gear is safe for use? | Article 26.2 (b) | |
| 38.4 | What do you do when, in the view of the competent authority, the appliance or gear is not safe for use? | Article 26.2 (b) | |
| 38.5* | How do you inform cargo-handling terminals when you feel that lifting appliances, loose gear or other cargo-handling appliances are unsafe? | Article 26.2 (b) | |

* **Note:** Question 38.5 is only applicable when the audit is conducted at government level

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|------|---|--------------|--|
| 39.1 | On how many occasions has the loading or unloading of a ship been delayed or cargo operations suspended for reason of unsafe cargo-handling equipment despite the fact that the competent authority found the equipment satisfactory? | Article 26.3 | |
| 39.2 | Where do you keep the records of delays in loading or unloading a ship or of cargo operations suspended because of unsafe cargo-handling equipment? | Article 26.3 | |

Article 27

1. Every lifting appliance (other than a ship's derrick) having a single safe working load and every item of loose gear shall be clearly marked with its safe working load by stamping or, where this is impracticable, by other suitable means.
2. Every lifting appliance (other than a ship's derrick) having more than one safe working load shall be fitted with effective means of enabling the driver to determine the safe working load under each condition of use.
3. Every ship's derrick (other than a derrick crane) shall be clearly marked with the safe working loads applying when the derrick is used--
 - (a) in single purchase;
 - (b) with a lower cargo block;
 - (c) in union purchase in all possible block positions.

Article 28

Every ship shall carry rigging plans and any other relevant information necessary to permit the safe rigging of its derricks and accessory gear.

Article 29

Pallets and similar devices for containing or supporting loads shall be of sound construction, of adequate strength and free from visible defects liable to affect their safe use.

Article 30

Loads shall not be raised or lowered unless slung or otherwise attached to the lifting appliance in a safe manner.

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*

| No. | Question | Reference | Auditor's findings |
|------|--|-------------------------|--------------------|
| 40.1 | Who is responsible for ensuring that every lifting appliance having a single safe working load and every item of loose gear is clearly marked with its safe working load? | Article 27.1 | |
| 40.2 | How can the driver of a lifting appliance (other than a ship's derrick) determine if the lifting appliance has more than one safe working load and what safe working load can be applied under a certain condition of use? | Article 27.2 | |
| 40.3 | What different safe working loads are put on cargo derricks? | Article 27.3 (a) to (c) | |

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|-----|---|------------|--|
| 41. | Who is responsible for obtaining from ships the rigging plans and any other relevant information necessary to permit the safe rigging of its derricks and accessory gear? | Article 28 | |
|-----|---|------------|--|

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|-----|---|------------|--|
| 42. | Who checks that pallets and similar devices for containing or supporting loads are of sound construction, of adequate strength and free from visible defects liable to affect their safe use? | Article 29 | |
|-----|---|------------|--|

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|-----|--|------------|--|
| 43. | Who is responsible for ensuring that loads are not raised or lowered unless slung or otherwise attached to the lifting appliance in a safe manner? | Article 30 | |
|-----|--|------------|--|

Article 31

1. Every freight container terminal shall be so laid out and operated as to ensure so far as is reasonably practicable the safety of the workers.
 2. In the case of ships carrying containers, means shall be provided for ensuring the safety of workers lashing or unlashng the containers.
-

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
 - *Terminal plans*
-

Article 32

1. Any dangerous cargo shall be packed, marked and labelled, handled, stored and stowed in accordance with the relevant requirements of international regulations applying to the transport of dangerous goods by water and those dealing specifically with the handling of dangerous goods in ports.
 2. Dangerous substances shall not be handled, stored or stowed unless they are packed and marked and labelled in compliance with international regulations for the transport of such substances.
 3. If receptacles or containers of dangerous substances are broken or damaged to a dangerous extent, dock work, other than that necessary to eliminate danger, shall be stopped in the area concerned and the workers removed to a safe place until the danger has been eliminated.
 4. Adequate measures shall be taken to prevent exposure of workers to toxic or harmful substances or agents, or oxygen-deficient or flammable atmospheres.
 5. Where workers are required to enter any confined space in which toxic or harmful substances are liable to be present or in which there is liable to be an oxygen deficiency, adequate measures shall be taken to prevent accidents or injury to health.
-

What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour safety regulations*
- *Regulations on the transport of dangerous goods*
- *Port laws and by-laws*

Other

- *Company manuals and instructions*

| No. | Question | Reference | Auditor's findings |
|------|---|--------------|--------------------|
| 44.1 | How does the layout of the freight container terminal ensure the safety of the workers? | Article 31.1 | |
| 44.2 | What operational procedures are in place at the freight container terminal to ensure the safety of the workers? | Article 31.1 | |
| 44.3 | What operational procedures are in place to ensure the safety of workers lashing or unlashings the containers on board container ships? | Article 31.2 | |

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|------|---|--------------|--|
| 45.1 | What regulations are in place with regard to the handling of dangerous cargoes? | Article 32.1 | |
| 45.2 | Who verifies compliance with applicable regulations? | Article 32.2 | |
| 45.3 | What procedures are in place in case receptacles or containers of dangerous substances are broken or damaged to a dangerous extent? | Article 32.3 | |
| 45.4 | What measures are taken to prevent exposure of workers to toxic or harmful substances or agents, or oxygen-deficient or flammable atmospheres? | Article 32.4 | |
| 45.5 | What safety precautions are taken if workers are required to enter any confined space in which toxic or harmful substances are liable to be present or in which there is liable to be an oxygen deficiency? | Article 32.5 | |

Article 33

Suitable precautions shall be taken to protect workers against the harmful effects of excessive noise at the workplace.

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What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour safety regulations*

Other

- *Company manuals and instructions*
 - *Personnel records (for Article 35)*
 - *Terminal layout (for Article 35)*
-

Article 34

1. Where adequate protection against risks of accident or injury to health cannot be ensured by other means, workers shall be provided with and shall be required to make proper use of such personal protective equipment and protective clothing as is reasonably required for the performance of their work.
 2. Workers shall be required to take care of that personal protective equipment and protective clothing.
 3. Personal protective equipment and protective clothing shall be properly maintained by the employer.
-

Article 35

In case of accident, adequate facilities, including trained personnel, shall be readily available for the rescue of any person in danger, for the provision of first aid and for the removal of injured persons in so far as is reasonably practicable without further endangering them.

| No. | Question | Reference | Auditor's findings |
|------|---|--------------|--------------------|
| 46.1 | What precautions are taken against the harmful effects of excessive noise at the workplace? | Article 33 | |
| 46.2 | What are the noise emission standards for workplaces? | Article 33 | |
| 47.1 | What personal protective equipment and protective clothing is provided? | Article 34.1 | |
| 47.2 | Who pays for the provision of protective equipment and protective clothing? | Article 34.1 | |
| 47.3 | How do you ensure that workers actually use the protective equipment and protective clothing provided? | Article 34.1 | |
| 47.4 | How do you ensure that workers take care of the personal protective equipment and protective clothing provided? | Article 34.2 | |
| 47.5 | What company procedures are in place to ensure proper maintenance of personal protective equipment and protective clothing? | Article 34.3 | |
| 48.1 | What emergency first-aid facilities are provided? | Article 35 | |
| 48.2 | Where is the hospital situated? | Article 35 | |
| 48.3 | What is the number of available personnel trained in providing first-aid assistance? | Article 35 | |

Article 36

1. Each Member shall determine, by national laws or regulations or other appropriate methods consistent with national practice and conditions, and after consultation with the organisations of employers and workers concerned--
 - (a) for which risks inherent in the work there is to be an initial medical examination or a periodical medical examination, or both;
 - (b) with due regard to the nature and degree of the risks and the particular circumstances, the maximum intervals at which periodical medical examinations are to be carried out;
 - (c) in the case of workers exposed to special occupational health hazards, the range of special investigations deemed necessary;
 - (d) appropriate measures for the provision of occupational health services for workers.
2. All medical examinations and investigations carried out in pursuance of paragraph 1 of this Article shall be free of cost to the worker.
3. The records of the medical examinations and the investigations shall be confidential.

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What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour safety law*
- *Labour safety regulations*
- *Health regulations*

Other

- *Company manuals, instructions and records (for Article 37)*
- *Personnel records*

Article 37

1. Safety and health committees including employers' and workers' representatives shall be formed at every port where there is a significant number of workers. Such committees shall also be formed at other ports as necessary.
2. The establishment, composition and functions of such committees shall be determined by national laws or regulations or other appropriate methods consistent with national practice and conditions, after consultation with the organisations of employers and workers concerned, and in the light of local circumstances.

| No. | Question | Reference | Auditor's findings |
|------|--|---------------------|--------------------|
| 49.1 | Which laws or regulations stipulate medical examinations of workers? | Article 36.1 | |
| 49.2 | Which type of work requires an initial medical examination or a periodical medical examination, or both? | Article 36.1 (a) | |
| 49.3 | What are the maximum intervals at which periodical medical examinations are to be carried out? | Article 36.1 (b) | |
| 49.4 | For what special occupational health hazards are special investigations required? | Article 36.1 (c) | |
| 49.5 | What occupational health services are provided for workers? | Article 36.1 (d) | |
| 49.6 | What do the workers have to pay for medical examinations and investigations? | Article 36.2 | |
| 49.7 | Who has access to the records of medical examinations and investigations? | Article 36.3 | |

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|------|--|--------------------------|--|
| 50.1 | How often does the safety and health committee meet? | Article 37.1 | |
| 50.2 | Who are the members of the safety and health committee? | Article 37.1 and 37.2 | |
| 50.3 | What laws or regulations require the establishment of a safety and health committee? | Article 37.2 | |
| 50.4 | What are the functions of the safety and health committee? | Article 37.2 | |

Article 38

1. No worker shall be employed in dock work unless he has been given adequate instruction or training as to the potential risks attaching to his work and the main precautions to be taken.
2. A lifting appliance or other cargo-handling appliance shall be operated only by a person who is at least 18 years of age and who possesses the necessary aptitudes and experience or a person under training who is properly supervised.

What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour safety law and regulations*
- *Health regulations*

Other

- *Training curricula*
- *Training records*
- *Certificates*
- *Personnel records*
- *Investigation reports (for Article 39)*
- *Accident reports (for Article 39)*
- *Plans of facilities (for Article 40)*

Article 39

To assist in the prevention of occupational accidents and diseases, measures shall be taken to ensure that they are reported to the competent authority and, where necessary, investigated.

Article 40

In accordance with national laws or regulations or national practice, a sufficient number of adequate and suitable sanitary and washing facilities shall be provided and properly maintained at each dock, wherever practicable within a reasonable distance of the workplace.

| No. | Question | Reference | Auditor's findings |
|------|--|--------------|--------------------|
| 51.1 | What are the prior qualifications required of workers employed in dock work? | Article 38.1 | |
| 51.2 | What training courses are provided for workers? | Article 38.1 | |
| 51.3 | How is it ensured that workers receive adequate instructions regarding the risks involved in their work? | Article 38.1 | |
| 51.4 | What instructions are provided regarding safety precaution measures to be taken? | Article 38.1 | |
| 51.5 | What are the minimum requirements for persons operating lifting appliances or other cargo-handling appliances? | Article 38.2 | |

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| 52.1 | What are the requirements regarding the reporting of occupational accidents and diseases? | Article 39 | |
| 52.2 | Who investigates accidents and diseases? | Article 39 | |

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|------|---|------------|--|
| 53.1 | What requirements are stipulated in the national laws or regulations or national practice with regard to sanitary and washing facilities? | Article 40 | |
| 53.2 | How many sanitary and washing facilities are available? | Article 40 | |
| 53.3 | Where are the sanitary and washing facilities located? | Article 40 | |

Part IV. Implementation

Article 41

Each Member which ratifies this Convention shall--

- (a) specify the duties in respect of occupational safety and health of persons and bodies concerned with dock work;
- (b) take necessary measures, including the provision of appropriate penalties, to enforce the provisions of the Convention;
- (c) provide appropriate inspection services to supervise the application of the measures to be taken in pursuance of the Convention, or satisfy itself that appropriate inspection is carried out.

.....
What evidence to look for with respect to the desktop exercise:

Legislation

- *Labour law and regulations*
- *Factory laws*

Other

- *Government organizational charts*
 - *Government circulars*
 - *Government records*
-

Article 42

1. National laws or regulations shall prescribe the time-limits within which the provisions of this Convention shall apply in respect of--

- (a) the construction or equipping of a ship;
- (b) the construction or equipping of any shore-based lifting appliance or other cargo-handling appliance;
- (c) the construction of any item of loose gear.

2. The time-limits prescribed pursuant to paragraph 1 of this Article shall not exceed four years from the date of ratification of the Convention.

| No. | Question | Reference | Auditor's findings |
|-------|---|-------------------|--------------------|
| 54.1* | Where are the duties in respect of occupational safety and health of persons and bodies concerned with dock work specified? | Article 41 (a) | |
| 54.2* | How are the provisions of the Convention enforced? | Article 41 (b) | |
| 54.3* | What are the penalties for non-compliance with safety and health regulations? | Article 41 (b) | |
| 54.4* | How often are inspections concerning compliance with safety and health regulations carried out? | Article 41 (c) | |
| 54.5* | Which body has been designated to carry out inspections concerning compliance with safety and health regulations? | Article 41 (c) | |

* **Note:** Questions 54.1 to 54.4 are applicable to audits at both terminal and government level, while questions 55.1 to 5.3 are only applicable when the audit is conducted at government level

| | | | |
|-------|---|---------------------|--|
| 55.1* | When did the requirements of the Convention regarding the construction or equipping of a ship come into force? | Article 42.1 (a) | |
| 55.2* | When did the requirements of the Convention regarding the construction or equipping of any shore-based lifting appliance or other cargo-handling appliance come into force? | Article 42.1 (b) | |
| 55.3* | When did the requirements of the Convention regarding the construction of any item of loose gear come into force? | Article 42.1 (c) | |
| 56.* | When was the Convention ratified? | Article 42.2 | |

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SECTION 11

**Audit checklist for the Occupational Safety and Health
(Dock Work) Recommendation, 1979**

The numbers in column 3 refer to the relevant paragraphs of the Occupational Safety and Health (Dock Work) Recommendation, 1979 (R160), which stipulate the standards to be checked against

Part I. Scope and Definitions

I

1. For the purpose of this Recommendation, the term **dock work** covers all and any part of the work of loading or unloading any ship as well as any work incidental thereto; the definition of such work should be established by national law or practice. The organisations of employers and workers concerned should be consulted on or otherwise participate in the establishment and revision of this definition.

2. For the purpose of this Recommendation--

- (a) the term **worker** means any person engaged in dock work;
- (b) the term **competent person** means a person possessing the knowledge and experience required for the performance of a specific duty or duties and acceptable as such to the competent authority;
- (c) the term **responsible person** means a person appointed by the employer, the master of the ship or the owner of the gear, as the case may be, to be responsible for the performance of a specific duty or duties and who has sufficient knowledge and experience and the requisite authority for the proper performance of the duty or duties;
- (d) the term **authorised person** means a person authorised by the employer, the master of the ship or a responsible person to undertake a specific task or tasks and possessing the necessary technical knowledge and experience;
- (e) the term **lifting appliance** covers all stationary or mobile cargo-handling appliances, including shore-based power-operated ramps, used on shore or on board ship for suspending, raising or lowering loads or moving them from one position to another while suspended or supported;
- (f) the term **loose gear** covers any gear by means of which a load can be attached to a lifting appliance but which does not form an integral part of the appliance or load;
- (g) the term **access** includes egress;
- (h) the term **ship** covers any kind of ship, vessel, barge, lighter or hovercraft, excluding ships of war.

.....
What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour law, including explanations thereof*
- *National labour safety regulations*

| No. | Question | Reference | Auditor's findings |
|-----|--|-------------|--------------------|
| 1.1 | Where is the term "dock work" defined? | Paragraph 1 | |
| 1.2 | Who participated in the development of the definition "dock work"? | Paragraph 1 | |

| | | | |
|-----|--|------------------------|--|
| 2.1 | What definitions are used in your safety and health regulations? | Paragraph 2 (a) to (h) | |
| 2.2 | How many definitions are contained in your legislation? | Paragraph 2 (a) to (h) | |

II. General Provisions

3. In giving effect to the Occupational Safety and Health (Dock Work) Convention, 1979, each Member should take into consideration--

- (a) the provisions of the relevant conventions, regulations and recommendations adopted under the auspices of the Inter-Governmental Maritime Consultative Organisation and, in particular, those of the International Convention for Safe Containers, 1972, as at any time revised;
- (b) the relevant standards adopted by recognised international organisations dealing with matters of standardisation;
- (c) the relevant provisions of conventions, regulations and recommendations concerning inland navigation adopted under the auspices of international organisations.

4. In developing measures under Article 4, paragraph 1, of the Occupational Safety and Health (Dock Work) Convention, 1979, each Member should take into consideration the technical suggestions in the latest edition of the Code of Practice on safety and health in dock work published by the International Labour Office in so far as they appear to be appropriate and relevant in the light of national circumstances and conditions.

5. In taking the measures referred to in Article 4, paragraph 1, of the Occupational Safety and Health (Dock Work) Convention, 1979, each Member should take account of the provisions of Part III of this Recommendation, which are supplementary to those set out in Part III of that Convention.

.....

What evidence to look for with respect to the desktop exercise:

Legislation

- *National labour safety and transport laws*
- *Port laws and by-laws*
- *Labour safety laws*

Other

- *Training curricula*
- *Training records*

6. With a view to preventing occupational accidents and diseases, workers should be given adequate instruction or training in safe working procedures, occupational hygiene and, where necessary, first-aid procedures and the safe operation of cargo-handling appliances.

| No. | Question | Reference | Auditor's findings |
|------|--|-----------------|--------------------|
| 3.1* | Which IMO instruments (conventions, codes, guidelines, recommendations) have been adopted? | Paragraph 3 (a) | |
| 3.2* | Which ISO Standards have been adopted? | Paragraph 3 (b) | |
| 3.3* | Which international conventions, regulations and recommendations concerning inland navigation have been adopted? | Paragraph 3 (c) | |
| 4.* | How did you take into consideration the technical suggestions in the latest edition of the code of practice on safety and health in dock work when developing measures under Article 4, paragraph 1, of the Occupational Safety and Health (Dock Work) Convention, 1979? | Paragraph 4 | |

* **Note:** Questions 3.1 to 3.3 and question 4 are only applicable when the audit is conducted at government level

| | | | |
|-----|--|-------------|--|
| 5. | How did you take into consideration the provisions of Part III of this Recommendation when developing measures under Article 4, paragraph 1, of the Occupational Safety and Health (Dock Work) Convention, 1979? | Paragraph 5 | |
| 6.1 | What training courses are available? | Paragraph 6 | |
| 6.2 | Who conducts the training in cargo handling? | Paragraph 6 | |
| 6.3 | What areas are covered by training courses? | Paragraph 6 | |

III. Technical Measures

7.

(1) All passageways should be--

- (a) plainly marked;
- (b) so far as is reasonably practicable, kept free of any obstruction not related to the work in progress.

(2) Passageways used for vehicles should, so far as is reasonably practicable, be one-way in operation.

8.

(1) Wherever reasonably practicable, means of access should be so placed that no suspended loads pass over them.

(2) Wherever necessary, the means of access to a ship should be fitted with a safety net properly secured so as to prevent workers from falling into the water between the ship's side and the adjacent quay.

9. Junction plates used with ramps on roll-on/roll-off ships should be so designed and used as to be safe.

.....
What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
 - *Installation plans*
-

| No. | Question | Reference | Auditor's findings |
|-----|---|-------------------|--------------------|
| 7.1 | What colour are the markings of the passageways? | Paragraph 7.1 (a) | |
| 7.2 | How do you ensure that the markings of passageways are durable? | Paragraph 7.1 (a) | |
| 7.3 | Who is responsible for keeping passageways clear of obstructions? | Paragraph 7.1 (b) | |
| 7.4 | How many one-way passageways do you have for vehicle traffic? | Paragraph 7.2 | |

| | | | |
|-----|--|---------------|--|
| 8.1 | How do you ensure that no suspended loads pass over means of access? | Paragraph 8.1 | |
| 8.2 | Who provides the safety nets on the gangway? | Paragraph 8.2 | |

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|-----|---|-------------|--|
| 9.1 | What type of junction plates are used as ramps on roll-on/roll-off ships? | Paragraph 9 | |
| 9.2 | How do you ensure the safe use of junction plates as ramps on roll-on/roll-off ships? | Paragraph 9 | |

10.

(1) Every hatchway on the weatherdeck not protected by means of a coaming of adequate height and strength should be effectively guarded or covered.

(2) Every 'tween-deck hatchway should, when it is open, be effectively guarded to an adequate height.

(3) Guards may be temporarily removed on any side of a hatchway where this is necessary for loading or unloading goods.

(4) If, for technical reasons, the provisions of subparagraphs (1) and (2) of this Paragraph cannot be implemented, an authorised person should ensure the safety of the workers.

(5) Deck cargoes should not be placed on nor vehicles pass over any hatch cover which is not of adequate strength for that purpose.

.....

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
- *Installation plans*

11. When necessary, due to the size of the hold, provision should be made for more than one means of escape.

12. Operators of lifting appliances should check the operation of their safety devices before commencing work.

| No. | Question | Reference | Auditor's findings |
|------|---|----------------|--------------------|
| 10.1 | When do you guard or cover hatchways on the weatherdeck? | Paragraph 10.1 | |
| 10.2 | How do you guard 'tween-deck hatchways when they are open? | Paragraph 10.2 | |
| 10.3 | Who decides when a guard may be temporarily removed? | Paragraph 10.3 | |
| 10.4 | How do you ensure the safety of workers in such cases? | Paragraph 10.4 | |
| 10.5 | How do you determine if a hatch cover has adequate strength to place deck cargoes on it or let vehicles pass over it? | Paragraph 10.5 | |

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|-----|--|--------------|--|
| 11. | What are your policies regarding the requirements for more than one means of escape in a hold? | Paragraph 11 | |
|-----|--|--------------|--|

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|-----|--|--------------|--|
| 12. | Who ensures that operators of lifting appliances check the operation of their safety devices before commencing work? | Paragraph 12 | |
|-----|--|--------------|--|

13.

- (1) Petrol-driven vehicles or lifting appliances should not be refuelled in the hold of a ship and vehicles or lifting appliances driven by other fuels should only be refuelled in the hold of a ship under conditions which, so far as is reasonably practicable, ensure the safety of the workers.
 - (2) If reasonably practicable, preference should be given to the use in the hold of engines which do not pollute the air.
-

14. As far as is reasonably practicable, workers should not be required to work in the part of a hold where a trimming machine or grab is operating.

15. No new part of a lifting appliance or item of loose gear should be manufactured of wrought iron.

.....

16. No heat treatment should be applied to any item of loose gear unless the treatment is carried out under the supervision of a competent person and in accordance with his/her instructions.

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
- *Installation plans*

| No. | Question | Reference | Auditor's findings |
|-----|----------|-----------|--------------------|
|-----|----------|-----------|--------------------|

| | | | |
|------|--|----------------|--|
| 13.1 | Where are petrol-driven vehicles or lifting appliances used in a hold refuelled? | Paragraph 13.1 | |
| 13.2 | How is the workers' safety ensured if refuelling is done in a hold? | Paragraph 13.1 | |
| 13.3 | What type of engines are used for work in holds? | Paragraph 13.2 | |

| | | | |
|-----|--|--------------|--|
| 14. | How do you ensure the safety of workers working in the part of a hold where a trimming machine or grab is operating? | Paragraph 14 | |
|-----|--|--------------|--|

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|-----|--|--------------|--|
| 15. | How do you ensure that no new part of a lifting appliance or item of loose gear is manufactured of wrought iron? | Paragraph 15 | |
|-----|--|--------------|--|

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|------|---|--------------|--|
| 16.1 | Who is authorized to apply heat treatment to an item of loose gear? | Paragraph 16 | |
| 16.2 | What are his/her qualifications? | Paragraph 16 | |

17. Suitable and adequate dunnage should be used if necessary to protect slings of pre-slung cargoes.

18. Slings which have not been approved or inspected should not under any circumstances be used for pre-slinging.

19. Every lifting beam, lifting frame, vacuum lifting or magnetic lifting device which does not form an integral part of a lifting appliance and every other item of loose gear weighing more than 100 kg should be clearly marked with its own weight.

20. Disposable pallets and similar disposable devices should--

- (a) be clearly marked or labelled to indicate that they are disposable;
 - (b) not be used unless they are free from defects liable to affect their safe use; and
 - (c) not be re-used.
-

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
 - *Installation plans*
-

21. Loads secured together by means of bailing wires or straps should not be raised or lowered by means of hooks or other devices inserted in the wires or straps unless the wires or straps are of adequate strength.

| No. | Question | Reference | Auditor's findings |
|-----|--|--------------|--------------------|
| 17. | How are slings of pre-slung cargoes protected? | Paragraph 17 | |

| | | | |
|-----|--|--------------|--|
| 18. | How do you ensure that slings used for pre-slinging have been approved or inspected? | Paragraph 18 | |
|-----|--|--------------|--|

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|-----|--|--------------|--|
| 19. | When do you mark a lifting beam, lifting frame, vacuum lifting or magnetic lifting device and an item of loose gear with its own weight? | Paragraph 19 | |
|-----|--|--------------|--|

| | | | |
|------|---|-------------------------|--|
| 20.1 | What instructions have been given with regard to the use of disposable pallets and similar disposable devices? | Paragraph 20 (a) to (c) | |
| 20.2 | Who is responsible for the implementation of the instructions regarding the use of disposable pallets and similar disposable devices? | Paragraph 20 (a) to (c) | |

| | | | |
|-----|--|--------------|--|
| 21. | How do you determine that loads secured together by means of bailing wires or straps can be raised or lowered by means of hooks or other devices inserted in the wires or straps because the wires or straps are of adequate strength? | Paragraph 21 | |
|-----|--|--------------|--|

22. Every reasonable measure should be taken to minimise risks of accident when work has to be carried out on top of freight containers.

.....
What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
 - *Installation plans*
 - *Equipment construction drawings*
 - *Training records*
-

23.

(1) Dangerous substances should only be handled, stored or stowed under the supervision of a responsible person.

(2) When dangerous substances are to be handled, stored or stowed, the workers concerned should be given adequate information as to the special precautions to be observed, including action to be taken in the event of a spillage or accidental escape from containment.

24. First-aid personnel should be proficient in the use of appropriate resuscitation techniques and rescue work.

25. Lifting appliances, where necessary and reasonably practicable, should be fitted with a means of emergency escape from the driver's cabin. There should be arrangements for the removal of an injured or ill driver without further endangering him.

| No. | Question | Reference | Auditor's findings |
|-----|--|--------------|--------------------|
| 22. | What measures are in place to minimize risks of accident when work has to be carried out on top of freight containers? | Paragraph 22 | |

| | | | |
|------|--|----------------|--|
| 23.1 | Who supervises the handling, storage or stowage of dangerous substances? | Paragraph 23.1 | |
| 23.2 | What are his/her qualifications? | Paragraph 23.1 | |
| 23.3 | What training is given to workers handling, storing or stowing dangerous substances? | Paragraph 23.2 | |
| 23.4 | Who provides information on the hazards emanating from the dangerous substances handled? | Paragraph 23.2 | |

| | | | |
|------|---|--------------|--|
| 24.1 | What training does first-aid personnel receive? | Paragraph 24 | |
| 24.2 | How often do they practise? | Paragraph 24 | |

| | | | |
|------|---|--------------|--|
| 25.1 | What means of emergency escape from the driver's cabin are fitted to lifting appliances? | Paragraph 25 | |
| 25.2 | What arrangements are in place for the removal of an injured or ill driver without further endangering him/her? | Paragraph 25 | |

26.

(1) The results of the medical examinations and investigations referred to in Article 36 of the Occupational Safety and Health (Dock Work) Convention, 1979, should be communicated to the worker concerned.

(2) The employer should be informed whether the worker is fit for the work to be carried out and whether he may constitute a risk to other persons, on the condition that, subject to Article 39 of the Convention, the confidential character of the information is respected.

27. The facilities provided in pursuance of Article 40 of the Occupational Safety and Health (Dock Work) Convention, 1979, should, so far as is reasonably practicable, include changing rooms.

What evidence to look for with respect to the desktop exercise:

- *Company manuals and instructions*
- *Installation plans*
- *Drawings of buildings*

| No. | Question | Reference | Auditor's findings |
|------|---|----------------|--------------------|
| 26.1 | How are the results of special or periodic medical examinations and investigations of workers treated? | Paragraph 26.1 | |
| 26.2 | To whom are these results communicated? | Paragraph 26.1 | |
| 26.3 | How is it ensured that the employer is informed whether a worker is fit for the work to be carried out? | Paragraph 26.2 | |
| 26.4 | How is an employer informed that a worker may constitute a risk to other persons, at the same time ensuring the confidentiality of the information? | Paragraph 26.2 | |

| | | | |
|------|--|--------------|--|
| 27.1 | How many changing rooms are available? | Paragraph 27 | |
| 27.2 | Where are the changing rooms located? | Paragraph 27 | |

SECTION 12

Audit checklist for
Safety and health in ports, ILO code of practice (2005)

The numbers in column 3 refer to the relevant paragraphs of *Safety and health in ports, ILO code of practice (2005) (CoP)*, which stipulate the standards to be checked against

CoP Section 2 - General Provisions

(...)

2.1.2. Competent authorities

(...)

2. Competent authorities should ensure that legal requirements on safety and health in ports are put into practice. These should clearly define the bodies responsible for enforcing them and clearly identify duty holders. Enforcement bodies should also carry out accident and injury prevention activities, including the provision of appropriate information.

.....
What evidence to look for with respect to the desktop exercise:

Legislation

- National labour law, including explanations thereof
- National labour safety regulations

Other

- Circulars and notices

2.1.3. Port employers

1. Port employers, port authorities who carry out the function of a port employer and any other person who employs workers, on a permanent or temporary basis, should provide and maintain the workplace, plant and equipment they own, control or operate in a safe condition. They should also provide up-to-date written information on their safe use and operation.

2. Bodies employing or managing portworkers should:

- ensure that all portworkers (especially newly engaged workers) are properly instructed in the hazards of their respective occupations and the precautions that are necessary to avoid accidents and injuries;
- ensure that portworkers are appropriately informed of national or local legal requirements relating to their protection;
- provide appropriate supervision to ensure that the conditions of work of portworkers are as safe and healthy as possible, and that the relevant safe systems of work are followed;
- if they are not themselves carrying out the port work, cooperate with those bodies and persons that are carrying it out in order to keep workplaces and plant and equipment safe.

.....
What evidence to look for with respect to the desktop exercise:

- Management system manuals
- Procedures
- Circulars and notices
- Data sheets

| No. | Question | Reference | Auditor's findings |
|-----|--|-------------------|--------------------|
| 1.1 | How do the different competent authorities ensure liaison between them, if applicable? | Paragraph 2.1.2.1 | |
| 1.2 | Who is/are the competent authority(ies) in your country? | Paragraph 2.1.2.2 | |

| | | | |
|-----|--|-------------------|--|
| 2.1 | What type of instructions are available with regard to information on the safe use and operation of plant and equipment? | Paragraph 2.1.3.1 | |
| 2.2 | When did you last receive instructions related to operational hazards? | Paragraph 2.1.3.2 | |
| 2.3 | Who is your supervisor? | Paragraph 2.1.3.2 | |

Section 2 (cont'd)

2.1.4. Contractors and labour or service providers

Contractors and labour or service providers should cooperate with port authorities and other bodies working in port areas to protect the safety and health of all persons who may be affected by their activities. In particular, they should ensure that:

- all workers they employ or supply are appropriately trained and competent to perform the work they are required to do in port areas;
- all such persons are aware of the particular hazards of the port areas in which they are to work, the hazards and precautions to be taken in connection with port work in general, and any local rules;
- all such persons are appropriately supervised;
- all plant and equipment that they supply or use is of sound construction and properly maintained in a safe condition;
- they supply such information as is necessary to others who may be affected by their activities;
- they cooperate with the port authority, other employers and any other relevant bodies.

What evidence to look for with respect to the desktop exercise:

- *Training records*
- *Training curricula*

2.1.5. Ships' officers

Ships' officers should cooperate with shore personnel as necessary. This should include:

- providing safe means of access to the ship and to any place on the ship where portworkers need to work;
- ensuring that any ship's equipment that will be used by portworkers is of sound construction and properly maintained;
- providing such information as is necessary to portworkers on the ship;
- ensuring that the activities of the ship's crew do not give rise to hazards to safety or health on the ship;
- ensuring that if the crew work together with portworkers, joint safe systems of work are followed to protect the safety and health of all involved.

What evidence to look for with respect to the desktop exercise:

- *Management system manuals*
- *Procedures*
- *Working instructions*
- *Notices to ships*

| No. | Question | Reference | Auditor's findings |
|-----|--|-----------------|--------------------|
| 3.1 | What are the training curricula for portworkers? | Paragraph 2.1.4 | |
| 3.2 | Who is your supervisor for hazardous operations? | Paragraph 2.1.4 | |
| 3.3 | How do you ensure proper dissemination of information on hazards and on precautions to be taken? | Paragraph 2.1.4 | |

| | | | |
|-----|---|-----------------|--|
| 4.1 | How do you ensure that safe access to the ship is provided? | Paragraph 2.1.5 | |
| 4.2 | Who verifies that the ship's equipment is properly maintained and in good working condition? | Paragraph 2.1.5 | |
| 4.3 | How do you ensure that the crew do not carry out unsafe activities while portworkers are on board or in the vicinity? | Paragraph 2.1.5 | |

Section 2 (cont'd)

2.1.6. Management

1. Management bears the prime responsibility for safety and health in port work. Managers should be given the necessary authority, resources, training and support to put the policy of senior management into practice.
2. The management of port authorities or shipping companies that provide cargo-handling equipment for use in port work should strictly observe the relevant legal requirements and should be responsible for the safety of the equipment which they provide.
3. Management should provide appropriate information about occupational safety and health (OSH) and offer relevant vocational training to workers.
4. Management should draw up, organize, implement and monitor appropriate systems of work (this should include the choice of equipment) such that the safety and health of portworkers is ensured. Management should participate in the vocational training of all personnel.
5. Management should ensure that appropriate corrective action is taken as soon as any faults in plant or equipment or any hazards are reported to them, such action including the stoppage of workplaces or equipment if necessary.
6. Management should ensure that the work environment is safe at all times. Managers should continually check that portworkers work in accordance with the agreed safe systems of work and that any hazards identified are controlled.
7. It is essential that management comply with its own rules at all times, in order to be in a stronger position to demand such compliance from the workers.

What evidence to look for with respect to the desktop exercise:

- *Management system documentation such as records, procedures and working instructions*
- *Training records*

2.1.7. Supervisors

1. Supervisors are an important level of management and the guidance relating to management also applies to them. However, supervisors occupy a particularly important position in the management chain as the representatives of management with whom portworkers are most likely to come into contact and by whom they are most likely to be influenced.
2. It is imperative that supervisors are fully aware of the need for port work to be carried out safely as well as efficiently, and they should know how work is carried out in practice.
3. In particular, supervisors should:
 - bring to the attention of the portworkers the hazards and risks of the work they carry out and the need to follow safe systems of work;
 - ensure that portworkers are provided with and use when necessary the correct protective clothing and equipment, which should be issued and maintained in good and efficient working condition;
 - ensure that any defects in plant or procedures or other hazards, which they see or are reported to them, are dealt with promptly.

| No. | Question | Reference | Auditor's findings |
|-----|--|---------------------|--------------------|
| 5.1 | What training is provided for managers? | Paragraph 2.1.6.1 | |
| 5.2 | How is the continuous safety of equipment in accordance with legal requirements ensured? | Paragraph 2.1.6.2 | |
| 5.3 | What vocational training is provided to portworkers? | Paragraph 2.1.6.3/4 | |
| 5.4 | How is the work system organized? | Paragraph 2.1.6.4 | |
| 5.5 | What procedures are in place to deal with faulty equipment? | Paragraph 2.1.6.5 | |
| 5.6 | How do you ensure implementation of safety measures? | Paragraph 2.1.6.6 | |

| | | | |
|-----|--|-------------------|--|
| 6.1 | What special training is provided to supervisors to enable them to fulfil their obligations with regard to safety? | Paragraph 2.1.7.3 | |
| 6.2 | Who is responsible for ensuring provision of protective clothing and equipment? | Paragraph 2.1.7.3 | |
| 6.3 | How do you ensure proper use of protective clothing and equipment? | Paragraph 2.1.7.3 | |

Section 2 (cont'd)

2.1.8. Portworkers

1. Safety is also a matter for all portworkers, who should:
 - inform themselves of the risks inherent in their work and take full advantage of any vocational training courses available;
 - cooperate with ships' officers to ensure that their activities do not give rise to hazards to the safety or health of crew members;
 - acquaint themselves with and carry out all safety and health instructions relating to their work;
 - comply strictly with all safety rules and instructions at all times;
 - make proper use of all safeguards, safety devices and other appliances furnished for their protection or the protection of others;
 - refrain from careless or reckless practices or actions that are likely to result in accidents or injuries to health;
 - as soon as practicable, notify their supervisor (and, where appropriate, their trade union or a competent authority inspector) of any operation or equipment which they consider to be defective or otherwise dangerous. Such operations or equipment should not be further used until it has been checked and approved for further use;
 - cooperate in the training of new workers, giving them the benefit of their experience;
 - not interfere with, remove, alter or displace any safety devices and other appliances provided for their personal protection or that of others, or interfere with any procedure or safe system of work, except in an emergency or with proper authorization;
 - be aware that other persons might be affected by their actions when carrying out port work. In some countries, portworkers have a legal responsibility in connection with the safety and health of others, as well as themselves.

2. Workers' organizations should be considered active partners in the development and administration of OSH material and courses for portworkers. To this end, they should also be provided with adequate means and assistance, as agreed by employers. In some cases, information given to portworkers by their own unions can have a much greater effect than information from other sources.

What evidence to look for with respect to the desktop exercise:

- *Management system documentation such as records, procedures and working instructions*
 - *Training records*
 - *Circulars and notices*
-

2.1.9. Self-employed persons

1. Self-employed persons are responsible for the safety and health of themselves and others who may be affected by their actions.
2. Self-employed persons should ensure that they are appropriately trained and competent to carry out their work, and should do that work in accordance with local legal requirements. It is essential that they liaise and cooperate with port authorities, employers and other relevant bodies, as appropriate.

| No. | Question | Reference | Auditor's findings |
|-----|--|-------------------|--------------------|
| 7.1 | What awareness training is provided to portworkers? | Paragraph 2.1.8.1 | |
| 7.2 | How can portworkers obtain information on applicable safety rules? | Paragraph 2.1.8.1 | |
| 7.3 | What system is in place that will make portworkers aware of their obligations with regard to safety and health? | Paragraph 2.1.8.1 | |
| 7.4 | What notification system is in place with regard to defective equipment or occurrence of hazardous situations? | Paragraph 2.1.8.1 | |
| 7.5 | How do you ensure that portworkers do not interfere with, remove, alter or displace any safety devices and other appliances? | Paragraph 2.1.8.1 | |
| 7.6 | What measures are in place to prevent portworkers from being careless or reckless? | Paragraph 2.1.8.1 | |
| 7.7 | How are workers' organizations involved in the development and administration of OSH material and courses for portworkers? | Paragraph 2.1.8.2 | |

| | | | |
|------|--|-------------------|--|
| 8.1* | How do you ensure that self-employed persons are properly trained for their job? | Paragraph 2.1.9.2 | |
| 8.2* | How is proper liaison between external companies and your staff ensured? | Paragraph 2.1.9.2 | |
| 8.3* | What liaison procedures are in place between self-employed persons operating in your terminal and other organizations? | Paragraph 2.1.9.2 | |

Note: * Only applicable when self-employed persons are working on the premises

Section 2 (cont'd)

2.1.10. Safety and health advisers

1. Safety and health advisers should assist management in implementing its policy to provide a safe and healthy workplace, and should give advice on safety and health matters to managers, supervisors and workers and their representatives, as appropriate.
2. The work of a safety and health adviser may include involvement in:
 - updating or replacement of existing equipment;
 - analysis of accident rates and trends;
 - presenting the results of the analyses to management and workers and their representatives, as appropriate;
 - development and revision of safe systems of work;
 - investigation of accidents;
 - proposals for new projects;
 - safety audits;
 - safety committees;
 - training.

What evidence to look for with respect to the desktop exercise:

- *Management system documentation such as records, procedures and working instructions*
- *Organizational charts*
- *Circulars and notices*

2.1.11. Other persons at work

Any other persons who may be present at work in port areas in addition to persons who carry out cargo-handling operations (e.g. hauliers, ships' crew members, pilots, ships' agents, immigration and customs officers, inspectors, members of the emergency services) should cooperate with the management of the port authority and other organizations with which they are working, and should comply with all relevant legal requirements.

2.1.12. Passengers and other non-workers

Passengers and other members of the general public who may be present in port areas but do not carry out port work should be separated from hazardous operations and instructed on the actions they should take by means of notices, verbal instructions or otherwise, and should comply with such instructions.

| No. | Question | Reference | Auditor's findings |
|-----|--|--------------------|--------------------|
| 9.1 | Who is your safety and health adviser? | Paragraph 2.1.10.1 | |
| 9.2 | What are his/her functions? | Paragraph 2.1.10.1 | |
| 9.3 | When was the last safety audit carried out by the safety and health adviser? | Paragraph 2.1.10.1 | |
| 9.4 | Where are the analyses made by the safety and health adviser kept? | Paragraph 2.1.10.1 | |

| | | | |
|-----|--|------------------|--|
| 10. | How do you ensure the cooperation of other persons carrying out cargo operations on your premises with regard to compliance with applicable safety and health standards? | Paragraph 2.1.11 | |
|-----|--|------------------|--|

| | | | |
|------|---|------------------|--|
| 11.1 | How do you separate passengers and other non-workers from hazardous operations? | Paragraph 2.1.12 | |
| 11.2 | What safety instructions are given to passengers and other non-workers? | Paragraph 2.1.12 | |

Section 2 (cont'd)

(...)

2.2.2. Risk assessment systems

1. The difference between “hazard” and “risk” should be clearly understood:
 - A *hazard* is a source of potential harm or damage, and may be a physical item or situation.
 - A *risk* is the combination of the likelihood and the consequence of a specific hazard.
2. Risk assessment is an essential part of safety management. It provides a sound basis for the improvement of safety. It should cover all work tasks and hazards in the workplace and allows hazards to be assessed to see how harmful they are.
3. A risk-based safety management system requires management personnel to identify which activities need to be controlled within their organization and to interlink those activities for effective management. A risk-based approach allows for a continual improvement of standards, whereas a quality-based system merely requires adherence to a fixed standard.
4. Risk-assessment systems may be qualitative or quantitative. In qualitative risk assessment, risk is estimated by methods such as task analysis, identification of human factors and performance modelling. In quantitative risk assessment, risk is estimated by taking into account the probability and severity of the outcome of a hazard. This is the method most commonly used to assess the risk of hazards in ports.
5. In its simplest form, the quantitative risk rating is the product of the probability of a hazard occurring and the potential consequences, including their severity (...).
6. These two factors should be determined independently. Although a potential consequence may be extremely serious, the probability of it occurring may be very low.
7. Multiplying these two factors gives a range of risk ratings between 1 and 25. These can indicate high-risk situations (20-25) that require rapid action, medium-risk situations (10-16) that require action or further evaluation within an appropriate period, and low-risk situations (1-9) that may require relatively little or no action.
8. More detailed risk-assessment systems also consider the frequency of the presence of the hazard.
9. Quantitative risk assessment is not a precise science but a tool to assist decision-making. It should not be used as a substitute for common sense when a hazard is patently obvious.
10. Risk assessment is best undertaken by a team including:
 - a responsible manager;
 - a supervisor;
 - a worker representative;
 - a safety adviser;
 - a health adviser, where appropriate.
11. Any action found to be necessary should be planned and implemented within an agreed time scale. It should be checked that the action has been taken.

What evidence to look for with respect to the desktop exercise:

- *Management system documentation such as records, procedures and working instructions*

| No. | Question | Reference | Auditor's findings |
|------|--|---------------------------|--------------------|
| 12.1 | Who carries out risk assessment? | Paragraph 2.2.2.3 / 10 | |
| 12.2 | When was the last risk assessment carried out? | Paragraph 2.2.2.2 / 3 | |
| 12.3 | What type of risk assessment is carried out? | Paragraph 2.2.2.4 | |
| 12.4 | What criteria are used in risk assessment? | Paragraph 2.2.2.4 - 9 | |

Section 2 (cont'd)

2.2.3. Safety and health management systems

1. National and local safety and health management systems for ports should be based on risk assessment, in accordance with the main elements of the ILO's *Guidelines on occupational safety and health management systems, ILO-OSH 2001*. These are:

- *Policy*. A clear statement of the organization's policy for safety and health involving workers at all levels.
- *Organization*. Specification of responsibilities and accountability, and necessary competencies and training requirements. These should be fully documented and effectively communicated to all concerned.
- *Planning*. Planning of development and implementation of the management system based on the latest review. This should identify measures necessary to eliminate or control hazards and set realistic objectives for the current period.
- *Evaluation*. Monitoring and measurement of current performance, investigation of accidents, periodic audits and review of the management system.
- *Action*. The implementation of necessary action to achieve continuous improvement of occupational safety and health.

What evidence to look for with respect to the desktop exercise:

- *Management system documentation such as manuals, records, procedures and working instructions*
 - *Organizational charts*
-

| No. | Question | Reference | Auditor's findings |
|------|--|-----------------|--------------------|
| 13.1 | Who is the "designated person" responsible for your OSH management system? | Paragraph 2.2.3 | |
| 13.2 | What is your OSH policy statement? | Paragraph 2.2.3 | |
| 13.3 | Who carries out the evaluation of your OSH management system? | Paragraph 2.2.3 | |
| 13.4 | Where do you keep the records of non-conformities and of action taken to rectify them? | Paragraph 2.2.3 | |

Section 2 (cont'd)

2.3. Safe systems of work

1. Accidents are unplanned events. Working in a structured manner that recognizes and controls potential hazards can minimize such events. This is the basis of a safe system of work. Such systems result in safer and more efficient operations. Although they may not have been developed with safety in mind, quality control systems similarly result in safer operations by ensuring that operations follow specified patterns, thereby minimizing unplanned events.
2. Development of safe systems of work should include consideration of the:
 - operations to be performed;
 - workers who will carry them out;
 - location of the work;
 - working environment;
 - nature of the cargo to be handled;
 - plant, equipment and materials to be used;
 - precautions to be taken, including any necessary emergency arrangements.
3. A safe system of work should specify:
 - the task;
 - necessary competencies of workers;
 - equipment to be used, including protective equipment where necessary;
 - potential hazards;
 - control of the relevant hazards;
 - procedures to be followed;
 - control and supervision.
4. To be effective, a safe system of work should be developed in consultation with all parties involved with putting it into practice. Once finalized, it should be promulgated by appropriate means and any necessary training carried out before it is put into effect. Supervisory staff should monitor the implementation and effectiveness of the system in practice and be alert for any problems that may occur.
5. Safe systems of work should be reviewed periodically in the light of changes and operational experience, and revised as necessary.

What evidence to look for with respect to the desktop exercise:

- *Management system documentation such as manuals, records, procedures and working instructions*
 - *Organizational charts*
-

| No. | Question | Reference | Auditor's findings |
|------------|--|------------------------|---------------------------|
| 14.1 | What type of management system do you have in place? | Paragraph 2.3.1 | |
| 14.2 | What points were considered when your safe system of work was developed? | Paragraph 2.3.2 | |
| 14.3 | What type of operations are specified in your safe system of work? | Paragraph 2.3.3 | |
| 14.4 | Who was involved in the development of your safe system of work? | Paragraph 2.3.4 | |
| 14.5 | How often do you review your safe system of work? | Paragraph 2.3.5 | |

Section 2 (cont'd)

(...)

2.4.1 Organization for safety and health in ports

1. The close interdependence of productivity and safety and health at work should be recognized by all who work in ports.
2. A permanent service responsible for OSH should be established in each port. The service should have the following tasks:
 - promotion of OSH throughout the port and prevention of occupational accidents and diseases;
 - inspection of workplaces;
 - investigation into the causes of accidents that lead to death, serious injury or serious material damage;
 - informing management and portworkers of such accidents and the lessons to be learned from them;
 - informing management of incidents involving non-compliance with safety regulations;
 - making formal reports on breaches of legal requirements;
 - where necessary, drawing the attention of the relevant competent authority to urgent cases in which its immediate action or advice may be required;
 - at regular intervals, drawing up reports of relevant activities, including accident statistics and practical advice on safety and health.
3. The port authority, even if not directly involved in port operations, should have the overall control of the operation of safe systems of work, the promotion of a safety culture and the development of safety and health in the port. The port authority should set up a central port safety and health committee with the help of employers and portworkers for fostering the necessary cooperation between all bodies involved in port work.

What evidence to look for with respect to the desktop exercise:

- *Management system documentation such as records, procedures and working instructions*
 - *Organizational charts*
 - *Port by-laws*
-

| No. | Question | Reference | Auditor's findings |
|------|--|-------------------|--------------------|
| 15.1 | Who provides the permanent service for occupational safety and health in the port? | Paragraph 2.4.1.2 | |
| 15.2 | What are the functions of this service? | Paragraph 2.4.1.2 | |
| 15.3 | Who has the overall control of the safe operation in the port? | Paragraph 2.4.1.3 | |
| 15.4 | Who are the members of the central port safety and health committee? | Paragraph 2.4.1.3 | |

Section 2 (cont'd)

2.4.2. Safety and health committees

1. The composition and functions of a port safety and health committee depend on the number of employers and workers in the port and the organization of work in it. Particular attention should be paid to the problems associated with the increasing mobility of labour and the use of contract or other non-permanent workers in ports. Normally, the committee is composed of representatives of management and workers in equal numbers. Committees can be set up to cover an entire port, as well as individual facilities or enterprises.

2. The functions of safety and health committees include:

- drawing up rules setting out safe systems of work for operations, and revising them when necessary;
- consideration of all proposals submitted for the improvement of working methods in the interests of safety;
- consideration of reports of inquiries into accidents and the drawing of lessons from them with a view to preventing recurrence;
- dissemination of information to portworkers and employers about hazards inherent in the work and ways of eliminating them or protecting themselves against them. This may include the preparation of safety leaflets, posters, and so on.

3. To perform these functions, the committee should be kept regularly informed of all dangerous incidents, accidents and occupational diseases that occur. It should also be informed of dangerous and unhealthy working conditions that are found, before they result in an accident or an incident of ill health.

4. In addition to a port safety and health committee, separate committees, affiliated to the port committee, should be set up by individual employers. A representative of the port authority should attend some meetings of these committees.

5. In some countries there is also a national port health and safety committee consisting of representatives of the relevant competent authorities, port employers and portworkers. This permits the systematic supply of information to all interested parties and enables them to learn from relevant incidents and experiences in many ports without identifying them. These committees have been found to be of considerable mutual benefit by all who have taken part in them.

6. The safety and health committee should cooperate with the port security committee as appropriate.

7. In the event of a conflict, safety and health should be paramount.

What evidence to look for with respect to desktop exercise:

- *Legislation*
 - *Port by-laws*
 - *Circulars and notices*
- *Port authority documentation*
- *Port organizational chart*

| No. | Question | Reference | Auditor's findings |
|------|---|-------------------|--------------------|
| 16.1 | Who are the members of your port safety and health committee? | Paragraph 2.4.2.1 | |
| 16.2 | What are the functions of the port safety and health committee? | Paragraph 2.4.2.2 | |
| 16.3 | How is it ensured that the port safety and health committee receives information on dangerous incidents, accidents and occupational diseases? | Paragraph 2.4.2.3 | |
| 16.4 | How many safety and health committees have been established in the port? | Paragraph 2.4.2.4 | |
| 16.5 | Who is a member of your safety and health committee? | Paragraph 2.4.2.4 | |
| 16.6 | Who chairs the national port safety and health committee? | Paragraph 2.4.2.5 | |
| 16.7 | How does the national port safety and health committee disseminate the results of its deliberations? | Paragraph 2.4.2.5 | |

Section 2 (cont'd)

2.4.3. Safety representatives

1. The function of safety representatives is to represent other workers. In some countries, they may be appointed in accordance with national legal requirements and have a number of additional functions.
2. Safety representatives may be appointed by recognized trade unions or, where they do not exist, by groups of workers.
3. Safety representatives should take an active part in the work of safety and health committees by providing a channel for the flow of information both from workers to management and from management to workers. Such information should not be restricted to a particular group of workers but disseminated to all relevant workers.
4. Safety representatives should be encouraged to raise safety and health concerns with the committee. However, they should not “save up” reports of defective equipment or other obvious hazards that need attention for the committee meeting. Such reports should be brought to the attention of the appropriate person and dealt with accordingly. They should only be raised with the committee if appropriate action has not been taken or when other members of the committee can benefit from lessons that can be learned from the report.

What evidence to look for with respect to the desktop exercise:

- *National legislation*
- *Port regulations*

2.5.1. In-house reporting of accidents

1. All cases of injury or occupational illness to portworkers should be reported to the appropriate person in accordance with in-house instructions and procedures. Every effort should be made to encourage individuals to report incidents without repercussions because the report has been made.
2. Management should ensure that a written record is kept of all accidents, incidents of occupational illness and other occurrences, in accordance with national legal requirements.
3. Management should also identify other types of accidents that should be reported to them. These may be incidents resulting in certain damage to plant or property, or that have the potential to cause significant injury or damage (often termed “near misses”).

What evidence to look for with respect to the desktop exercise:

- *National legislation*
 - *Port regulations*
 - *Management system documentation such as records, procedures and working instructions*
-

| No. | Question | Reference | Auditor's findings |
|------|--|-------------------|--------------------|
| 17.1 | Who is your safety representative? | Paragraph 2.4.3.1 | |
| 17.2 | By whom has he/she been appointed? | Paragraph 2.4.3.2 | |
| 17.3 | How does the safety representative take an active part in the work of the safety and health committee? | Paragraph 2.4.3.3 | |
| 17.4 | When does the safety representative raise safety and health concerns? | Paragraph 2.4.3.4 | |

| | | | |
|------|--|-------------------|--|
| 18.1 | What are the in-house requirements for the reporting of injuries and occupational illnesses? | Paragraph 2.5.1.1 | |
| 18.2 | What are the legal requirements regarding the reporting of accidents, incidents of occupational illness and other occurrences? | Paragraph 2.5.1.2 | |
| 18.3 | Where are the records related to such accidents, incidents of occupational illness and other occurrences kept? | Paragraph 2.5.1.2 | |
| 18.4 | What other types of accidents have to be reported? | Paragraph 2.5.1.3 | |

Section 2 (cont'd)

2.5.2. Statutory reporting of accidents

1. All occupational accidents to portworkers causing loss of life, serious personal injury or incapacity for work, and incidents of specified occupational diseases, should be reported promptly to the relevant competent authority, in accordance with national legal requirements.
2. Certain other accidents, often termed “dangerous occurrences”, may also be required to be reported to the competent authority, whether or not they have resulted in injury. These, and relevant occupational diseases, are specified in national legal requirements or by the competent authority. Examples may include the collapse of cranes or derricks, explosions and serious fires.
3. The competent authority should undertake an investigation into the causes and circumstances of any fatality and serious accident in accordance with national policy.
4. The scene of a fatal accident should, as far as practicable, be left undisturbed until it has been visited by a representative of the competent authority.
5. After a dangerous failure of plant or gear, the plant or gear should, as far as practicable, be kept available for inspection by the competent authority.

What evidence to look for with respect to the desktop exercise:

- *National legislation*
- *Port regulations*
- *Accident reports*
- *Investigation reports*

2.5.3. Investigation of accidents

1. All accidents should be investigated with a view to determining their cause and to determining the action that should be taken to prevent any similar accident in the future.
2. The formality and depth of the investigation should be proportional to the severity or potential severity of the accident. Often, only a minor change in circumstances can make the difference between an accident resulting in no injury, very minor injury, or a fatality. It should not be necessary to wait for a serious injury to occur before appropriate steps are taken to control a hazard. Action taken after a “near miss” can prevent future injuries and losses resulting from damage.
3. The names of witnesses should be recorded and any relevant photographs taken should be identified, captioned and dated.
4. The investigation should consider all the relevant evidence. This may include the site where the incident occurs, plant, the type of cargo being handled or substances being used, systems of work, responsibilities and people involved, including their physical or mental condition, training and competencies.
5. It is important to investigate not only the *direct* cause of an accident, but also to determine the *underlying* cause or causes, which are often the real cause of an accident. Human factors have been found to be relevant to a high proportion of accidents.

| No. | Question | Reference | Auditor's findings |
|------|---|-----------------------|--------------------|
| 19.1 | What occupational accidents have to be reported in accordance with national legal requirements? | Paragraph 2.5.2.1 | |
| 19.2 | What other accidents or incidents have to be reported? | Paragraph 2.5.2.2 | |
| 19.3 | When does the competent authority conduct an investigation into the causes of an accident or incident? | Paragraph 2.5.2.3 | |
| 19.4 | How do you ensure that scenes of accidents or incidents are left untouched until the competent authority arrives? | Paragraph 2.5.2.4 / 5 | |

| | | | |
|------|---|-----------------------|--|
| 20.1 | What is the main purpose of conducting an accident investigation? | Paragraph 2.5.3.1 | |
| 20.2 | How are accident investigations conducted? | Paragraph 2.5.3.2 - 5 | |

Section 2 (cont'd)

(...)

2.6.1. Selection of portworkers

1. The provisions of the ILO Discrimination (Employment and Occupation) Convention, 1958 (No. 111), should be fully applied in the selection process in order to eliminate any possible discrimination.
2. Portworkers should only be engaged following an appropriate selection process.
3. A portworker needs to have a good physical constitution. Normal reflexes and good eyesight are essential for safe port work, especially for operators of mechanical equipment.
4. Further training is necessary after selection if the worker is not already appropriately trained and fully competent for the type of work to which he or she is to be assigned.
5. Portworkers should be able to work in teams. It should be recognized that:
 - their acts and behaviour will have a direct influence on those of other portworkers;
 - the safety and output of other workers will depend on their own vigilance, work and knowledge;
 - the safety of others may be dependent on their own safety.
6. Modern selection methods enable selection to be based on objective tests of medical fitness and aptitude, as appropriate. It is desirable for port occupational health staff and personnel officers, as well as relevant operational management, to be involved in the selection of portworkers.
7. No person under 18 years of age should be employed in port work, except as permitted by the competent authority in accordance with national legal requirements. However, workers over 16 years of age may be employed under an apprenticeship or other training scheme, subject to conditions prescribed by the national authority.
8. The main resources necessary for training portworkers are suitable premises and equipment, training material, teaching staff and appropriate remuneration of trainees.

What evidence to look for with respect to the desktop exercise:

- *National legislation*
 - *Port regulations*
 - *Management system documentation such as records, procedures*
-

| No. | Question | Reference | Auditor's findings |
|------|---|---------------------|--------------------|
| 21.1 | How do you ensure that there is no discrimination during the selection of personnel? | Paragraph 2.6.1.1 | |
| 21.2 | What is your personnel selection method? | Paragraph 2.6.1.2/6 | |
| 21.3 | What are the minimum requirements regarding the physical condition of an applicant for a vacant position? | Paragraph 2.6.1.3 | |
| 21.4 | How do you establish whether additional training is required for a person to be engaged? | Paragraph 2.6.1.4 | |
| 21.5 | How do you establish whether a candidate is capable of teamwork? | Paragraph 2.6.1.5 | |
| 21.6 | Who is involved in the selection process? | Paragraph 2.6.1.6 | |
| 21.7 | What are the legal conditions for employing persons under the age of 18 years? | Paragraph 2.6.1.7 | |
| 21.8 | What training facilities are available? | Paragraph 2.6.1.8 | |

Section 2 (cont'd)

2.6.2. Training needs

1. All portworkers should be trained to develop the knowledge, psychomotor and attitude skills which they need to enable them to do their work safely and efficiently, as well as to develop general safety awareness. Portworkers should be aware of the potential effects of their actions on others, as well as the specific hazards of their work and methods to control them. Training should include both general induction training and training relevant to their specific work.
2. Consideration should be given to the need for continuation or refresher training in addition to initial training. This may be necessary to deal with technological advances and the introduction of new plant or working practices. It may also be necessary to eradicate bad practices that have developed with time and to remind workers of basic principles.
3. Records should be maintained of the training that each portworker has received and the competencies that have been attained.

2.6.3. Induction training

1. General induction training should be given to all persons who are to work in ports. This training should cover the general hazards associated with ports, which are often quite different from those encountered in other industries.
2. The training should also include site-specific hazards and relevant local rules, emergency arrangements and the need to cooperate with other persons working in the port. It can be accompanied by a leaflet for all visitors to a port setting out basic information, including the action to be taken in an emergency.
3. Persons with previous relevant training may not need to be required to repeat the general part of the induction training; however, they should receive the relevant site-specific information in all cases.

2.6.4. Job-specific training

1. The need for structured training, rather than just working alongside a more experienced worker, has increased following the mechanization of port work.
 2. Job-specific training, including knowledge of cargo-handling methods, should be provided for all portworkers working with cargo, not just those operating plant or other equipment.
 3. National vocational qualifications in relevant port work competencies should be developed. The holding of a relevant certificate of competency can assist potential employers in the selection of portworkers. However, the holding of such a certificate should not relieve an employer from the duty to check that the necessary skills have been maintained and can be put into practice.
 4. Port authorities and private companies should be aware of the ILO Portworker Development Programme (PDP). This has been developed to give international guidance on vocational training for portworkers.
-

What evidence to look for with respect to the desktop exercise:

- National legislation
- Training curricula and records

| No. | Question | Reference | Auditor's findings |
|------|---|---------------------|--------------------|
| 22.1 | How are training needs established? | Paragraph 2.6.2.1 | |
| 22.2 | What type of training is provided? | Paragraph 2.6.2.1/2 | |
| 22.3 | How often is refresher training provided? | Paragraph 2.6.2.2 | |
| 22.4 | Who keeps the training records? | Paragraph 2.6.2.3 | |

| | | | |
|------|---|-------------------|--|
| 23.1 | What does general induction training consist of? | Paragraph 2.6.3.1 | |
| 23.2 | Who provides the training on specific hazards and relevant local regulations? | Paragraph 2.6.3.2 | |
| 23.3 | Who provides site-specific information to trained new staff? | Paragraph 2.6.3.3 | |

| | | | |
|------|---|-------------------|--|
| 24.1 | Who receives function-specific training? | Paragraph 2.6.4.2 | |
| 24.2 | What vocational training is provided to portworkers in the country? | Paragraph 2.6.4.3 | |
| 24.3 | What certificates of competence related to port work are available? | Paragraph 2.6.4.3 | |
| 24.4 | Which ILO PDPs are used for training? | Paragraph 2.6.4.4 | |

Section 2 (cont'd)

2.6.5. Training methods

Training should generally include both theoretical training in a classroom and practical training. Training of portworkers should normally be carried out in ports to allow demonstrations of working practices by experienced personnel and to bring trainees into close contact with future workplaces.

What evidence to look for with respect to the desktop exercise:

- *National legislation*
 - *Training curricula and records*
-

2.6.6. Evaluation of training

Attendance at a training course does not guarantee that a trainee has gained the necessary skills. Where appropriate, training courses should conclude with a suitable test that demonstrates that the trainee has reached the necessary level of skills. Successful trainees should be given a certificate specifying the skills and, where appropriate, the level attained.

2.7. Information for portworkers

1. Relevant information on matters that are likely to affect their safety or health should be available to all portworkers. The information should be given to them in writing or made available to them by other means.
2. The information should include relevant safe systems of work, material safety data sheets relating to dangerous cargo that they handle or dangerous substances that they use during their work, and reference to relevant port safety and health legal requirements.

What evidence to look for with respect to the desktop exercise:

- *Notices*
 - *Circulars*
-

2.8. Special facilities for disabled persons

Special facilities for disabled persons relating to safety and health should be provided as appropriate according to national legal requirements.

What evidence to look for with respect to the desktop exercise:

- *National legislation*
- *Drawings and plans of the facility*

| No. | Question | Reference | Auditor's findings |
|------|------------------------------------|-----------------|--------------------|
| 25.1 | What type of training is provided? | Paragraph 2.6.5 | |
| 25.2 | Where is the training provided? | Paragraph 2.6.5 | |

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|------|--|-----------------|--|
| 26.1 | How is the success of the training verified? | Paragraph 2.6.6 | |
| 26.2 | What types of certificates are issued? | Paragraph 2.6.6 | |

| | | | |
|------|---|-----------------|--|
| 27.1 | By what means is information related to matters affecting safety and health given to portworkers? | Paragraph 2.7.1 | |
| 27.2 | What information is provided? | Paragraph 2.7.2 | |

| | | | |
|------|---|---------------|--|
| 28.1 | What are the legal requirements to be observed in relation to disabled persons? | Paragraph 2.8 | |
| 28.2 | What facilities are provided for disabled persons? | Paragraph 2.8 | |

CoP Section 3 – Port infrastructure, plant and equipment

For desktop exercises, applicable legislation and standards should be obtained and compared with available certificates or descriptions of the respective installation, plant or equipment.

3.1 General provisions

| No. | Question | Reference | Auditor's findings |
|------|--|-------------------|--------------------|
| 29. | How are people and vehicles separated in the terminal? | Paragraph 3.1.1 | |
| 30. | How do you ensure that surfaces are always in proper condition and adequate for the purpose? | Paragraph 3.1.2 | |
| 31.1 | What are the national requirements with regard to lighting? | Paragraph 3.1.3 | |
| 31.2 | How do you ensure that lighting corresponds to national requirements? | Paragraph 3.1.3 | |
| 32.1 | What are the general requirements with regard to fire precautions? | Paragraph 3.1.4.1 | |
| 32.2 | What advice has been received from the local fire authorities? | Paragraph 3.1.4.1 | |
| 33.1 | What fire protection measures are in place? | Paragraph 3.1.4.2 | |
| 33.2 | How do you control sources of ignition? | Paragraph 3.1.4.2 | |
| 34.1 | How does your fire alarm system work? | Paragraph 3.1.4.3 | |
| 34.2 | Where do you keep records related to the maintenance of the fire alarm system? | Paragraph 3.1.4.3 | |
| 34.3 | How often are the fire alarms tested? | Paragraph 3.1.4.3 | |

Section 3 (cont'd)

| No. | Question | Reference | Auditor's findings |
|------|---|-------------------|--------------------|
| 35.1 | What are the legal requirements regarding fire-fighting equipment? | Paragraph 3.1.4.4 | |
| 35.2 | What type of fire-fighting equipment is available? | Paragraph 3.1.4.4 | |
| 35.3 | How often is the fire-fighting equipment tested? | Paragraph 3.1.4.4 | |
| 35.4 | Where are test records kept? | Paragraph 3.1.4.4 | |
| 36.1 | How many escape routes are normally available? | Paragraph 3.1.5 | |
| 36.2 | How are assembly points identified? | Paragraph 3.1.5 | |
| 36.3 | How do you ensure that emergency services always have access to any part of the port or terminal? | Paragraph 3.1.5 | |

3.2 Traffic routes

| | | | |
|------|---|-----------------|--|
| 37.1 | What are the national requirements regarding roadways? | Paragraph 3.2.1 | |
| 37.2 | How far are your roadways in line with the recommendations stipulated in the CoP ? | Paragraph 3.2.1 | |
| 37.3 | How many dedicated parking spaces do you have? | Paragraph 3.2.1 | |
| 37.4 | How do you separate vehicles and pedestrians? | Paragraph 3.2.1 | |

Section 3 (cont'd)

| No. | Question | Reference | Auditor's findings |
|------|--|-----------------|--------------------|
| 38.1 | How do you ensure that walkways are secure? | Paragraph 3.2.2 | |
| 38.2 | How are walkways marked? | Paragraph 3.2.2 | |
| 38.3 | How wide are your walkways? | Paragraph 3.2.2 | |
| 39.1 | How do you mark permanent or temporary obstructions? | Paragraph 3.2.3 | |
| 39.2 | What coverings are used to cover a hole or trench? | Paragraph 3.2.3 | |
| 39.3 | How do you mark overhead obstructions? | Paragraph 3.2.3 | |

3.3 Cargo-handling areas

| | | | |
|------|--|-----------------|--|
| 40.1 | How do you ensure that cargo-handling areas are in line with the requirements for surfaces and lighting? | Paragraph 3.3.1 | |
| 40.2 | How you protect lamp standards and similar structures against damages through cargo operation? | Paragraph 3.3.1 | |
| 40.3 | How do you mark crossing walkways? | Paragraph 3.3.1 | |
| 41. | How do you protect edges? | Paragraph 3.3.2 | |
| 42. | How do you protect quay edges? | Paragraph 3.3.3 | |

Section 3 (cont'd)

| No. | Question | Reference | Auditor's findings |
|------------|---|-----------------------|---------------------------|
| 43.1 | Of what type are your permanent fences? | Paragraph 3.3.4.1 | |
| 43.2 | What is the normal height of your fences? | Paragraph 3.3.4.5 | |
| 44.1 | How many quayside ladders are there at your installation? | Paragraph 3.3.5 | |
| 44.2 | How far apart are they? | Paragraph 3.3.5.2 | |
| 44.3 | How are they protected? | Paragraph 3.3.5.7 | |
| 45.1 | What life-saving equipment is provided? | Paragraph 3.3.6.1 / 2 | |
| 45.2 | What colour is the life-saving equipment? | Paragraph 3.3.6.4 | |
| 45.3 | How are places with life-saving equipment marked? | Paragraph 3.3.6.8 | |

Section 3 (cont'd)**3.4 - Shore-side access to ships**

| No. | Question | Reference | Auditor's findings |
|------|--|--------------------------|--------------------|
| 46. | How do you comply with the general requirements stipulated in the CoP regarding shore-side access to ships? | Paragraph 3.4.1 | |
| 47. | What type of shore ramps and passenger walkways do you use? | Paragraph 3.4.2 | |
| 48. | What type of landing stages do you use? | Paragraph 3.4.3 | |
| 49.1 | How far do stairways and steps reach into the water? | Paragraph 3.4.4.1 | |
| 49.2 | How are harbour crafts protected against steps and stairways? | Paragraph 3.4.4.2 | |
| 50. | How do you ensure that quayside ladders are not used for mooring purposes? | Paragraph 3.4.5 | |

Section 3 (cont'd)**3.5 Access to terminal buildings, structures and plant**

| No. | Question | Reference | Auditor's findings |
|------------|--|--------------------------|---------------------------|
| 51. | How do you comply with the general requirements stipulated in the CoP regarding access to terminal buildings, structures and plant? | Paragraph 3.5.1 | |
| 52.1 | What are the national requirements regarding stairways and steps? | Paragraph 3.5.2.1 | |
| 52.2 | How do you ensure that stairways and steps are not slippery? | Paragraph 3.5.2.4 | |
| 53. | How do you comply with the requirements stipulated in the CoP regarding fixed ladders and walkways? | Paragraph 3.5.3 | |
| 54. | How do you ensure compliance with the requirements relating to portable ladders? | Paragraph 3.5.4 | |
| 55. | How often do you use rope ladders? | Paragraph 3.5.5 | |
| 56.1 | What are the national safety requirements for lifts? | Paragraph 3.5.6.1 | |
| 56.2 | How many emergency staircases are provided in areas with lifts? | Paragraph 3.5.6.2 | |

Section 3 (cont'd)

3.6 Terminal plant and equipment

| No. | Question | Reference | Auditor's findings |
|-------------|--|--------------------------|---------------------------|
| 57.1 | How do you ensure compliance with the general requirement that terminal plant and equipment used should be of good design and construction? | Paragraph 3.6.1 | |
| 57.2 | What maintenance system is in place for terminal plant and equipment? | Paragraph 3.6.1 | |
| 58.1 | How do you ensure compliance with the requirements of the CoP relating to mobile equipment? | Paragraph 3.6.2 | |
| 58.2 | Who is responsible for the proper maintenance of mobile equipment? | Paragraph 3.6.2 | |
| 58.3 | Where do you keep maintenance records for the different types of mobile equipment? | Paragraph 3.6.2 | |
| 59. | How far do you comply with the safety requirements stipulated in the CoP regarding the operation of conveyors? | Paragraph 3.6.3 | |
| 60.1 | What are the national legal requirements for electrical equipment? | Paragraph 3.6.4.1 | |
| 60.2 | How do you ensure that electrical equipment for use in places where potentially explosive atmosphere is likely to occur complies with the relevant recommendations of the Electrotechnical Commission? | Paragraph 3.6.4.6 | |
| 61. | Who inspects hand tools and at what intervals? | Paragraph 3.6.5 | |

Section 3 (cont'd)

| No. | Question | Reference | Auditor's findings |
|------|---|-------------------|--------------------|
| 62.1 | How are dangerous parts of machinery securely guarded? | Paragraph 3.6.6 | |
| 62.2 | What happens to machinery when the guard is removed? | Paragraph 3.6.6.4 | |
| 62.3 | When do you isolate machinery pipes? | Paragraph 3.6.6.6 | |
| 63.1 | How is safe access to mooring dolphins and bollard ensured? | Paragraph 3.6.7.1 | |
| 63.2 | How do you ensure that the mooring facilities are adequate in relation to the ships calling the terminal? | Paragraph 3.6.7.7 | |
| 64. | What vehicle sheeting facilities are available? | Paragraph 3.6.8 | |
| 65.1 | How are cargo racks constructed? | Paragraph 3.6.9.1 | |
| 65.2 | How are cargo racks marked? | Paragraph 3.6.9.2 | |

3.7 Bulk cargo terminals

| | | | |
|------|--|-----------------|--|
| 66. | What safety precautions are in place for the handling of bulk solids? | Paragraph 3.7.1 | |
| 67.1 | What safety precautions are in place for the handling of bulk liquids and gases? | Paragraph 3.7.2 | |
| 67.2 | What are the national legal safety requirements for handling bulk liquids and gases? | Paragraph 3.7.2 | |

Section 3 (cont'd)**3.8 Container terminals**

| No. | Question | Reference | Auditor's findings |
|-------------|---|--------------------------|---------------------------|
| 68.1 | How do you ensure separation of persons on foot from vehicles? | Paragraph 3.8.2.1 | |
| 68.2 | How are the runways of rail-mounted or rubber-tyred gantry cranes marked? | Paragraph 3.8.2.2 | |
| 69.1 | How do you separate operational areas from other areas? | Paragraph 3.8.3.1 | |
| 69.2 | How is the movement of persons in the terminal regulated? | Paragraph 3.8.3.2 | |
| 70.1 | What reception facilities are provided at road entrances to and exits from the cargo-handling area? | Paragraph 3.8.4.1 | |
| 70.2 | How is the safe checking of vehicles and containers ensured? | Paragraph 3.8.4.3 | |
| 71. | How do you ensure that there is an unobstructed view from a control room? | Paragraph 3.8.5 | |
| 72.1 | How is the safe operation of straddle carriers ensured (where applicable)? | Paragraph 3.8.6.1 | |
| 72.2 | What is the width of the grids? | Paragraph 3.8.6.2 | |

3.9 Passenger terminals

| | | | |
|------------|---|----------------------|--|
| 73. | How do you ensure the safety of passengers embarking or disembarking? | Paragraph 3.9 | |
|------------|---|----------------------|--|

Section 3 (cont'd)**3.10 Roll-on-roll-off (ro-ro) terminals**

| No. | Question | Reference | Auditor's findings |
|------|---|-------------------|--------------------|
| 74.1 | How do you control access to the terminal? | Paragraph 3.10.1 | |
| 74.2 | How is ro-ro traffic controlled? | Paragraph 3.10.2 | |
| 74.3 | What is the clearance radius for approaches to the ramps? | Paragraph 3.10.10 | |

3.11 Warehouses and transit sheds

| | | | |
|------|--|-------------------|--|
| 75.1 | What are the national legal requirements for the construction and operation of warehouses and transit sheds? | Paragraph 3.11.1 | |
| 75.2 | What safety precautions are taken for work in refrigerated chambers? | Paragraph 3.11.13 | |

3.12 Gatehouses and quay offices

| | | | |
|------|---|--------------------|--|
| 76.1 | How do you ensure that gatehouses comply with the national regulations for offices? | Paragraph 3.12.1.1 | |
| 76.2 | How do you ensure safe walking routes to quay offices? | Paragraph 3.12.2.4 | |

Section 3 (cont'd)**3.13 Port railways**

| No. | Question | Reference | Auditor's findings |
|------|---|-----------------------------|--------------------|
| 77.1 | What are the national regulations for port railways? | Paragraph 3.13.1 | |
| 77.2 | How do they compare with the recommendation contained in the CoP? | Paragraph 3.13.3 to 3.13.14 | |

3.14 Tenders and work boats

| | | | |
|-----|---|------------------|--|
| 78. | How far does the operation of tenders and work boats comply with the recommendation contained in the CoP? | Paragraph 3.14.3 | |
|-----|---|------------------|--|

3.15 Personal protective equipment

| | | | |
|------|---|------------------------|--|
| 79.1 | How do you establish what personal protective equipment has to be provided? | Paragraph 3.15.1.2 | |
| 79.2 | What personal protective equipment do you supply to cargo handlers? | Paragraph 3.15.1.3 | |
| 80.1 | Where is personal protective equipment stored when not in use? | Paragraph 3.15.2.1 | |
| 80.2 | Who ensures that personal protective equipment is maintained in accordance with manufacturers' recommendations? | Paragraph 3.15.2.2 / 3 | |

CoP Section 4 – Lifting appliances and loose gear

Compliance with CoP recommendations is mainly the responsibility of the competent authority that will have to prepare the relevant national legislation and standards taking into consideration the contents of this section of the CoP.

To verify that the CoP is complied with, the auditors will have to conduct desktop exercises and compare the applicable national legislation and standards with the CoP.

The questions set out below therefore cover only those aspects that fall within the responsibility of a terminal operator.

4.1 Basic requirements

| No. | Question | Reference | Auditor's findings |
|------|---|----------------------------|--------------------|
| 81.1 | How do you ensure that every lifting appliance or item of loose gear conforms to national requirements with regard to testing, examination, marking and regular inspection? | Paragraph 4.1.1 | |
| 81.2 | Where are the certificates, test results and operating manuals for lifting appliances or items of loose gear kept? | Paragraph 4.1.1 / 4.2.5 | |
| 82.1 | Who is responsible for the proper implementation of the maintenance schedule? | Paragraph 4.1.1 / 4.1.14.2 | |
| 82.2 | Where are the maintenance records kept? | Paragraph 4.1.14.6 | |
| 83. | Who are the persons responsible for inspecting lifting appliances and loose gear? | Paragraph 4.2.7 | |

CoP Section 5 - Safe use of lifting appliances and loose gear

Prior to conducting the audit the auditor needs to consult the following documents to verify compliance with the CoP (desktop exercise), as appropriate:

National legislation

- *Labour laws and regulations*
- *National standards*
- *Port laws and by-laws*
- *Notices*
- *Circulars*

Port authority / Company management systems

- Management system manuals
- Records such as training records, test records, maintenance records, audit reports, etc.
- Written procedures and working instructions
- Organizational charts
- Job descriptions
- Maintenance schedules
- Plans and drawings

Section 5.1 Basic requirements

5.1.1. General requirements

It is essential that all who work in ports are aware of the basic potential hazards of lifting operations. To control these hazards it is necessary to ensure that:

- all lifting equipment is suitable for the proposed operation and environment;
- initial and continuing integrity of the equipment can be demonstrated;
- all personnel are appropriately trained and supervised;
- lifting operations are properly planned and managed;
- safe systems of work are followed;
- the equipment is regularly maintained.

5.1.2. Planning and control of lifting operations

1. All lifting operations should be planned and carried out under the control of a responsible person. Operators of lifting appliances should be competent to control routine operations under the general control of management, but more complex and specialist operations should be carried out under the direct control of a person with the necessary knowledge and experience.

| No. | Question | Reference | Auditor's findings |
|------|---|-----------------|--------------------|
| 84.1 | How do you ensure that lifting equipment is suitable for the operation to be carried out? | Paragraph 5.1.1 | |
| 84.2 | How do you demonstrate the continuing integrity of the equipment? | Paragraph 5.1.1 | |
| 84.3 | What training is provided to personnel operating lifting equipment? | Paragraph 5.1.1 | |
| 84.4 | What maintenance is carried out on lifting equipment? | Paragraph 5.1.1 | |

| | | | |
|------|--|-------------------|--|
| 85.1 | Who plans and controls normal lifting operations? | Paragraph 5.1.2.1 | |
| 85.2 | Who plans and controls difficult lifting operations? | Paragraph 5.1.2.1 | |

Section 5.1 (cont'd)

2. Matters to be considered when planning lifting operations should include the following:

- type and size of ship and cargo;
- type of loads to be lifted;
- particular lifting hazards associated with those loads (position of centre of gravity, stability, rigidity, etc.);
- any handling symbols marked on cargo (figure 53);
- attachment of the load to the lifting appliance (availability of appropriate loose gear);
- frequency of the lifting operation;
- where the loads are to be lifted from and to;
- selection of appropriate lifting appliances;
- position of the lifting appliance (sufficient space and level ground);
- proximity hazards (power cables, buildings, roadways, other cranes, etc.);
- requirements for safe erection of the lifting appliance (space, ground loadings, level, etc.);
- ground loadings that will be applied by the lifting appliance and any necessary equipment to spread the load;
- provision of competent staff (lifting appliance operators, slingers, signallers, supervisors, etc.);
- safe systems of work for taking the lifting appliance out of service during maintenance, thorough examination, testing and repairs;
- emergency procedures, including rescue of an operator from an elevated position;
- systems for reporting breakdowns, accidents and dangerous occurrences;
- systems to prevent any unauthorized movement of lifting appliances;
- provision and maintenance of appropriate safety equipment.

3. The planning should be constantly reviewed to ensure that any changes are adequately considered.

4. International standard ISO 12480 *Cranes – Safe use – Part 1: General* gives guidance on the safe use of cranes.

5.1.3. Training

1. All lifting appliance operators and users of loose gear should be carefully selected, trained and tested to ensure that they are competent. Operators should be trained and certified to operate each make and model of lifting appliance which they operate.

2. International standard ISO 15513 *Cranes – Competency requirements for crane drivers (operators), slingers, signallers and assessors* provides guidance on the competency requirements for crane operators, slingers, signallers and assessors. Further guidance on the training of crane operators can be found in ISO 9926 *Cranes – Training of drivers*.

| No. | Question | Reference | Auditor's findings |
|-----|---|-------------------|--------------------|
| 86. | What items are considered when planning lifting operations? | Paragraph 5.1.2.2 | |

| | | | |
|-----|---------------------------------------|-------------------|--|
| 87. | How often do you review the planning? | Paragraph 5.1.2.3 | |
|-----|---------------------------------------|-------------------|--|

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|------|--|-------------------|--|
| 88.1 | How do you select lifting appliance operators and users of loose gear? | Paragraph 5.1.3.1 | |
| 88.2 | What training do they receive? | Paragraph 5.1.3.1 | |
| 88.3 | Who issues the certificates of competency? | Paragraph 5.1.3.1 | |

Section 5.1 (cont'd)

5.1.4. Inspection

5.1.4.1. General inspection requirements

1. All lifting appliances and loose gear should be regularly visually inspected before and during use with a view to checking for obvious deterioration and determining whether they are safe for continued use.
2. Inspection is a completely separate process from maintenance. Inspections should be carried out by conscientious, responsible personnel. Lifting machine operators and slingers are often competent to carry out daily and weekly inspections, but checks are needed to ensure that they have the necessary competence.

5.1.4.2. Daily checks

1. All lifting appliances should be inspected at the beginning of each shift or working day during which they are to be used. The use of a checklist is recommended.
2. The checks should include, as appropriate for the type of appliance, all daily checks specified in the manufacturer's handbook, and checks to ensure that:
 - all ropes are correctly positioned on their sheaves and drums are not displaced;
 - electrical equipment is not exposed to contamination by oil, grease, water or dirt;
 - relevant levels and/or components show no loss of fluids (e.g. lubricating oil, coolant);
 - all limit switches, cut-outs and dead man's handles or levers operate correctly; caution should be taken during checking in case of malfunction;
 - the safe working load limiter is correctly set and the manufacturer's daily test carried out;
 - the radius indicator is appropriate to the jib configuration fitted, if separate from the safe working load limiter;
 - the load-lifting attachment radius is varied without load to check the correct movement of the radius indicator and safe working load limiter;
 - correct air pressure is maintained in any pneumatic control system (e.g. brakes);
 - items such as lights, windscreen wipers, washers and other attachments are properly secured and operate efficiently;
 - wheels are secure, and the condition and pressure of tyres are appropriate on wheel-mounted lifting appliances;
 - all controls function correctly without load;
 - audible warning devices operate correctly;
 - the appliance is in tidy condition and free from tins of oil, rags, tools, or materials other than those for which storage provision is made;
 - safe access is provided;
 - appropriate fire-fighting equipment is available;
 - no obstructions are present in the path of travel of a crane.
3. Appropriate records should be kept. As a minimum, these should record that the inspection has been carried out and any defects found that could not be immediately rectified. Such defects should be reported for rectification.

| No. | Question | Reference | Auditor's findings |
|------|--|---------------------|--------------------|
| 89.1 | When are lifting appliances and loose gear visually inspected? | Paragraph 5.1.4.1.1 | |
| 89.2 | Who carries out these inspections? | Paragraph 5.1.4.1.2 | |

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|------|---|---------------------|--|
| 90.1 | What checklist do you use for daily checks? | Paragraph 5.1.4.2.1 | |
| 90.2 | What do the checks consist of? | Paragraph 5.1.4.2.2 | |

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|------|---|---------------------|--|
| 91.1 | Where do you keep the records related to the daily checking of lifting appliances and loose gear? | Paragraph 5.1.4.2.3 | |
| 91.2 | What is recorded? | Paragraph 5.1.4.2.3 | |

Section 5.1 (cont'd)

5.1.4.3. Weekly checks

1. All lifting appliances should be inspected once a week when in use. In addition to the items for daily inspection, the checks should include, as appropriate for the type of appliance:

- weekly checks specified in the manufacturer's handbook;
- visual inspection of all ropes for broken wires, flattening, basket distortion, excessive wear or surface corrosion, or other signs of damage;
- checks of all rope terminations, swivels, pins, retaining devices and sheaves for damage, worn bushes or seizure;
- checks of the structure for damage (including missing and bent bracings on bridges and strut jibs, as well as bulges, indentations and unusual rubbing marks, cracked welds and loose bolts or other fasteners);
- inspection of hooks and other load-lifting attachments, safety catches and swivels for damage, free movement or wear, and checks to ensure that hook shank threads and securing nuts do not show signs of excessive wear or corrosion;
- checks to ensure correct operation and adjustment of controllers;
- inspections to identify any creep of hydraulic rams and hoses, any fitting deterioration on hydraulic machines, and any oil leaks;
- checks to ensure the effectiveness of brakes and clutches;
- inspections of tyres for damage and wear on walls and tread, and checks of wheel nuts for tightness, on wheel-mounted mobile appliances;
- inspections of slew locks, if fitted;
- inspections of steering, brakes (foot and parking), lights, indicators, warning devices, windscreen wipers, and washers.

2. The results of all inspections of lifting appliances should be recorded. Details need be recorded only of defects found.

5.1.4.4 Blocks

Inspections of blocks should check that:

- sheaves are not cracked at the rim, and no part of the rim is missing;
- grooves are not excessively worn;
- sheaves turn freely and smoothly;
- head-fitting swivels are securely fastened and free from visible defects;
- shanks are not distorted, turn freely by hand and are not slack in their holes;
- clearance between sheaves and partitions of side plates is not excessive;
- side straps are sound and free from any cracks;
- greasing arrangements are satisfactory and grease nipples have not been painted over;
- data plates are intact and legible.

| No. | Question | Reference | Auditor's findings |
|------|--|---------------------|--------------------|
| 92.1 | What additional checks are carried out weekly? | Paragraph 5.1.4.3.1 | |
| 92.2 | Who maintains the records of these checks? | Paragraph 5.1.4.3.2 | |

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|-----|-----------------------------------|-------------------|--|
| 93. | What items are checked on blocks? | Paragraph 5.1.4.4 | |
|-----|-----------------------------------|-------------------|--|

Section 5.1 (cont'd)

5.1.4.5. Equipment not in regular use

1. The extent and thoroughness of inspections of lifting appliances not in regular use before each use should be based on the length of the period that the appliance is out of use and its location during this period. An appliance standing out of use under cover or inside a workshop may only require the checks recommended in sections 5.1.4.2 and 5.1.4.3.
2. An appliance left out of use exposed to the weather, atmospheric pollution, etc., may require an extensive appraisal to determine its fitness for use. This should include:
 - any checks recommended by the manufacturer;
 - examination of all ropes for signs of corrosion and damage;
 - examination of all control linkages for evidence of seizure or partial seizure;
 - checks to ensure thorough and correct lubrication;
 - testing of each crane motion for several minutes without load, first individually, then two or more motions simultaneously, as appropriate, before repeating the tests with a load;
 - checking the correct functioning of all crane safety devices;
 - checking hoses, seals and other components for evidence of deterioration.
3. Loose gear that is not in regular use should be returned to the gear store on shore or on board ship (see section 5.3.3.2).

5.1.5. Weather conditions

1. Lifting operations should only be carried out in weather conditions that are permitted in the relevant operating instructions.
2. Adverse weather conditions in which lifting operations may need to stop include:
 - high winds;
 - lightning;
 - dangerous impairment of visibility by rain, snow, fog, etc.;
 - adverse sea states;
 - significant vessel movement from wash.
3. Warning of adverse weather should not rely solely on anemometers on cranes. Weather forecasts should be obtained so that appropriate steps can be taken before the arrival of the high winds or other adverse weather conditions.
4. Even at lower wind speeds, it may be dangerous to continue lifting operations, particularly when the load on a crane has a large surface area (e.g. a container). Lifting operations should stop if it is likely to become difficult to control the movement of the load.

| No. | Question | Reference | Auditor's findings |
|-----|---|---------------------|--------------------|
| 94. | What inspections are carried out before using again lifting appliances not in regular use and stored under cover? | Paragraph 5.1.4.5.1 | |

| | | | |
|-----|---|---------------------|--|
| 95. | What inspections are carried out before using again lifting appliances not in regular use when they were exposed to the weather, atmospheric pollution, etc.? | Paragraph 5.1.4.5.2 | |
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|-----|--|---------------------|--|
| 96. | What happens to loose gear not in use? | Paragraph 5.1.4.5.3 | |
|-----|--|---------------------|--|

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|-----|---|-------------------|--|
| 97. | What are the instructions for use of lifting appliances under adverse weather conditions? | Paragraph 5.1.5.1 | |
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|-----|--|-------------------|--|
| 98. | What do you consider to be adverse weather conditions? | Paragraph 5.1.5.2 | |
|-----|--|-------------------|--|

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|-----|--|-------------------|--|
| 99. | How do you establish the likelihood of adverse weather conditions occurring? | Paragraph 5.1.5.3 | |
|-----|--|-------------------|--|

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|------|---|-------------------|--|
| 100. | When do you stop operations in case of increasing wind? | Paragraph 5.1.5.4 | |
|------|---|-------------------|--|

Section 5.1 (cont'd)

5. Operating instructions should include the actions to be taken by specified persons in the event of adverse weather.
6. When high wind speeds are expected, cranes should be secured in their appropriate out-of-service condition. If this requires the raising or lowering of a jib, the planned procedure should ensure that there is adequate time and space to do so. Rail-mounted cranes should be secured. Cranes secured at picket points should be travelled against the wind to the nearest picket position and the storm anchor inserted.
7. Lifting operations should be stopped and all persons withdrawn from the vicinity of the crane if there is a possibility of the crane being struck by lightning.
8. A crane that has been struck by lightning should be thoroughly examined before being returned to service.
9. Ropes attached to the load (tag lines) may be used to help control loads in light winds, but it is essential to ensure that workers holding tag lines are fully aware of the motions to be performed by the crane. Workers holding such lines should never attach them to, or wrap them around, their bodies. The lines should be held so that they can be instantly released if necessary.

| No. | Question | Reference | Auditor's findings |
|------|--|-------------------|--------------------|
| 101. | Where do you keep the working instructions relating to operations in adverse weather conditions? | Paragraph 5.1.5.5 | |

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|------|--|-------------------|--|
| 102. | What measures are taken for cranes when adverse weather conditions are expected? | Paragraph 5.1.5.6 | |
|------|--|-------------------|--|

| | | | |
|------|--|-------------------|--|
| 103. | What precautions do you take during lightning? | Paragraph 5.1.5.7 | |
|------|--|-------------------|--|

| | | | |
|------|--|-------------------|--|
| 104. | What are the procedures when a crane has been struck by lightning? | Paragraph 5.1.5.8 | |
|------|--|-------------------|--|

| | | | |
|------|--|-------------------|--|
| 105. | What precautions are taken when loads are controlled by ropes during high winds? | Paragraph 5.1.5.9 | |
|------|--|-------------------|--|

Sections 5.2 to 5.4

Auditing in respect of these sections should be done by comparing the operating instructions and training curricula with the corresponding requirements of the CoP and subsequent verification by visual inspections during operations.

There are some standard questions that should be put to supervisors or portworkers carrying out the specific tasks, always specifying the particular area or task for which compliance is to be verified. The areas or tasks to be addressed are listed below.

5.2 Lifting appliances

5.2.1 General requirements

5.2.1.1 Safe use

5.2.1.2 Care and maintenance

5.2.2 Ships' lifting appliances

5.2.2.1 Ships' derricks

5.2.2.2 Use of coupled derricks (union purchase)

5.2.2.3 Ships' cargo lifts

5.2.2.4 Ships' mobile lifting appliances

5.2.2.5 Cranes temporarily installed on ships

5.2.3 Shore cranes

5.2.4 Lift trucks

5.2.4.1 General requirements

5.2.4.2 Safe use

5.2.4.3 Reach trucks

5.2.4.4 Side-loading forklift trucks

5.2.4.5 Batteries

5.2.4.6 Pedestrian-controlled pallet trucks

5.2.5 Other lifting appliances

5.2.6 Use of more than one lifting appliance to lift a load

5.3 Loose gear

5.3.1 Safe working load

5.3.2 Safe use

5.3.3 Ropes and slings

5.3.3.1 Use

5.3.3.2 Storage and maintenance

5.3.3.3 Removal from service

5.3.4 Other loose gear

5.4 Signallers

Sections 5.2 to 5.4 (cont'd)

Sample questions that can be used to verify compliance with the recommendations of the CoP are given below.

1. Supervisor

- 1.1 What are the operating rules or instructions for
- 1.2 How do you ensure compliance with these operating rules?
- 1.3 Who supervises the operation of.....?
- 1.4 What are his/her qualifications?
- 1.5 Where do you keep the manufacturer's operating manuals for.....?
- 1.6 What training is provided for the operators of.....?
- 1.7 Where are the training records kept?
- 1.8 Who is responsible for the maintenance of
- 1.9 What is the maintenance schedule for the
- 1.10 Where are the maintenance records kept?

(Auditor always to specify what equipment the question refers to)

2. Portworker

- 2.1 When did you last check your operating rules or instructions for
- 2.2 Who developed the operating procedures?
- 2.3 How often do you check the equipment?
- 2.4 When do you consider the use of unsafe?
- 2.5 Whom do you advise if you consider the unsafe?
- 2.6 What operating instructions did you receive?
- 2.7 When were you last tested?
- 2.8 How do you establish what the safe workload is?
- 2.9 How do you establish that the safe workload is not exceeded?
- 2.10 How do you operate the equipment under special circumstances (Auditor to specify the circumstances)?

(Auditor always to specify what equipment the question refers to)

CoP Section 6 - Operations on shore

Sections 6.1 to 6.25

Auditing in respect of these sections also should be done by comparing the operating instructions and training curricula with the corresponding requirements of the CoP and subsequent verification by visual inspections during operations.

Here too there are some standard questions that should be put to supervisors or portworkers carrying out the specific tasks, always specifying the particular area or task for which compliance is to be verified. The areas or tasks to be addressed are listed below.

6.1 General provisions

- 6.1.1 General requirements
- 6.1.2 Access arrangements
- 6.1.3 Housekeeping and cleanliness
- 6.1.4 Manual handling
- 6.1.5 Cargo in transit
- 6.1.6 Operational maintenance
- 6.1.7 Hot work
- 6.1.8 Use of personal protective equipment (PPE)

6.2 Cargo packaging

6.3 Container operations

- 6.3.1 Control of container operations
 - 6.3.1.1 General requirements
 - 6.3.1.2 Straddle carrier exchange operations
 - 6.3.1.3 RMG and RTG exchange operations
 - 6.3.1.4. Entry to stacking areas
- 6.3.2 Container-stacking areas
- 6.3.3 Container handling and lifting
- 6.3.4 Changing spreader frames
- 6.3.5 Access to tops of containers
- 6.3.6 Operations inside containers
 - 6.3.6.1. Opening containers
 - 6.3.6.2. Customs inspections
 - 6.3.6.3. Packing and stripping of containers and other cargo transport units
 - 6.3.6.4. Cleaning of containers
- 6.3.7 In-transit repairs to containers

6.4 Conveyors

6.5 Electrical equipment

Sections 6.1 to 6.25 (cont'd)

- 6.6 Forest products**
 - 6.6.1 General requirements**
 - 6.6.2 Storage**
 - 6.6.3 Handling**
- 6.7 Gatehouses and reception buildings**
- 6.8 General cargo operations**
- 6.9 Machinery (general)**
- 6.10 Mobile equipment (general)**
 - 6.10.1 General requirements**
 - 6.10.2 Internal movement vehicles**
 - 6.10.3 Trailer operations**
 - 6.10.4 Trestles**
 - 6.10.5 Goosenecks**
 - 6.10.6 Roll trailers**
 - 6.10.7 Cassettes**
 - 6.10.8 Parking**
 - 6.10.9 Refuelling**
- 6.11 Liquid bulk cargoes**
- 6.12 Logs**
- 6.13 Mooring operations**
- 6.14 Pallet handling**
- 6.15 Passenger terminals**
- 6.16 Rail operations**
 - 6.16.1 General requirements**
 - 6.16.2 Loading and unloading of rail wagons**
 - 6.16.3 Moving rail wagons**
- 6.17 Roll-on-roll-off (ro-ro) operations**
- 6.18 Scrap metal**
- 6.19 Solid bulk cargoes**
- 6.20 Stacking and stowing of goods**
- 6.21 Steel and other metal products**
 - 6.21.1 General requirements**
 - 6.21.2 Storage**
 - 6.21.3 Handling**

Sections 6.1 to 6.25 (cont'd)

6.22 Trade vehicles

6.23 Traffic control

6.24 Warehouses and transit sheds

6.25 Confined spaces

6.25.1 General requirements

6.25.2 Hazards and precautions

Sample questions that can be used to verify compliance with the recommendations of the CoP are given below.

1. Supervisor

- 1.1 What are the operating rules or instructions related to the operation of.....?
- 1.2 How do you ensure compliance with these operating rules?
- 1.3 Who supervises the operation of.....?
- 1.4 What are his/her qualifications?
- 1.5 Where do you keep the national/international instruments related to the operation of.....?
- 1.6 What special equipment do you use for operation?
- 1.7 What special protective clothing is provided for operation?
- 1.8 What training is provided to the portworkers in respect of ?
- 1.9 Where are the training records kept?

(Auditor always to specify what operation the question refers to)

2. Portworker

- 2.1 When did you last check your operating rules or instructions for operation?
- 2.2 Who developed the operating procedures?
- 2.3 What special equipment do you use for operation?
- 2.4 Why are you not wearing protective clothing?
- 2.5 Whom do you advise if you consider the operation unsafe?
- 2.6 What operating instructions did you receive relating to the task you are currently performing?
- 2.7 What training did you receive for this operation?
- 2.8 How often do you receive training?

(Auditor always to specify what operation the question refers to)

CoP Section 7 - Operations afloat

Sections 7.1 to 7.11

Auditing in respect of these sections also should be done by comparing the operating instructions and training curricula with the corresponding requirements of the CoP and subsequent verification by visual inspections during operations.

Here too there are some standard questions that should be put to supervisors or portworkers carrying out work on board ships, always specifying the particular area or task for which compliance is to be verified. The areas or tasks to be addressed are listed below.

7.1 General provisions

7.2 Access to ships

- 7.2.1 General requirements
- 7.2.2 Accommodation ladders
- 7.2.3 Gangways
- 7.2.4 Portable ladders
- 7.2.5 Rope ladders
- 7.2.6 Bulwark steps
- 7.2.7 Access to the decks of bulk carriers and other large ships
- 7.2.8 Access to barges and other small ships
- 7.2.9 Access to ro-ro ships
- 7.2.10 Ship-to-ship access
- 7.2.11 Access by water

7.3 Access on board ships

- 7.3.1 General requirements
- 7.3.2 Access to holds
- 7.3.3 Access to deck cargo

7.4 Hatches

- 7.4.1 Hatch coverings
- 7.4.2 Handling hatch coverings
- 7.4.3 Stacking and securing of hatch coverings
- 7.4.4 Protection of hatches

7.5 Work in holds

- 7.5.1 General requirements
- 7.5.2 Working practices

Section 7 (cont'd)**7.6 Work on deck****7.6.1 General requirements****7.6.2 Lashing and securing of cargo****7.7 Shot cargo****7.8 Container ships****7.8.1. General requirements****7.8.2. Deck working****7.8.3. Container top working****7.9 Ro-ro ships****7.9.1. General requirements****7.9.2. Vehicle movements****7.9.3. Passenger movements****7.9.4. Vehicle lashing operations****7.9.5. Cargo lifts****7.10 Bulk carriers****7.11 Hot work**

Sample questions that can be used to verify compliance with the recommendations of the CoP are given below.

1. Supervisor

- 1.1 What are the procedures to ensure that ships to be worked on comply with safety and health requirements stipulated in the **CoP**?
- 1.2 What is done if a ship does not comply with safety and health requirements stipulated in the **CoP**?
- 1.3 Who supervises operations on board ships?
- 1.4 What are his/her qualifications?
- 1.5 How do you ensure that safe access to ships is always maintained?
- 1.6 Where are the instructions relating to work on deck/in holds on board ship kept?
- 1.7 What are the national regulations regarding "Hot work"?
- 1.8 What training is provided to the portworkers in respect of **(Auditor to specify the operation on board)?**
- 1.9 Where are the training records kept?

Section 7 (cont'd)

2. Portworker

- 2.1 When did you last check your operating rules or instructions for(Auditor to specify the operation on board)?
- 2.2 Who developed the operating procedures?
- 2.3 Who advises you regarding special equipment to use for the operation?
- 2.4 Who advises you on the specific risk of an operation to be carried out by you?
- 2.5 Why do you not wear / are you not wearing protective clothing?
- 2.6 Whom do you advise if you consider an operation unsafe (Auditor to specify operation)?
- 2.7 What operating instructions did you receive for the operation you are currently carrying out?
- 2.8 What training did you receive for the operation you are currently carrying out?
- 2.9 How often do you receive training for this operation?

CoP Section 8 - Dangerous goods

Sections 8.1 to 8.4

Auditing in respect of these sections should be done by comparing the legal requirements, operating instructions and training curricula with the respective requirements of the CoP.

Here too there are some standard questions that should be put to the competent authorities, management, supervisors or portworkers. The areas or tasks to be covered by the questions are listed below.

8.1 Packaged dangerous goods

- 8.1.1 General requirements
- 8.1.2 International arrangements
- 8.1.3 United Nations classification
- 8.1.4 *IMDG Code*
- 8.1.5 Checking of packaged dangerous goods

8.2 Solid bulk cargoes

8.3 Bulk liquids and gases

8.4 Operational precautions

- 8.4.1 General requirements
- 8.4.2 Training
- 8.4.3 Control of entry and presence
- 8.4.4 Notification of dangerous goods
- 8.4.5 Checking the information
- 8.4.6 Handling and stowage
- 8.4.7 Emergency arrangements in the port area
- 8.4.8 Special provisions
- 8.4.9 Repair and maintenance work

Sample questions that can be used to verify compliance with the recommendations of the CoP are given below.

1. Competent authorities

- 1.1 When did application of the *IMDG Code* become mandatory?
- 1.2 What are the legal requirements for the transport of dangerous goods by road, rail, inland waterways (where applicable) or air?
- 1.3 What are the minimum requirements regarding training and education for personnel handling or transporting dangerous goods?

Section 8 (cont'd)

- 1.4 What are the legal requirements regarding the control of movements of dangerous goods through the port area?
- 1.5 What are the "prior notification" requirements for dangerous goods?
- 1.6 Where are the national regulations regarding handling and stowage of dangerous goods published?
- 1.7 Who is responsible for preparing legislation regarding emergency preparedness and response in the ports?
- 1.8 Where are the minimum qualification requirements for "responsible persons" of a company handling or transporting dangerous goods specified?
- 1.9 What are the required procedures for receiving a permit to carry out repairs or maintenance or "Hot work" in the vicinity of dangerous goods?

2. Management and supervisors

- 2.1 How many copies of the *IMDG Code* do you have?
- 2.2 What amendment of the *IMDG Code* is currently used?
- 2.3 What other publications related to the transport of dangerous goods in packaged form or in solid or liquid bulk are available?
- 2.4 How do you ensure that information on dangerous goods (packaged, or in solid or liquid form) is provided to persons handling or transporting them?
- 2.5 How do you control the entry, presence and consequential handling of dangerous goods?
- 2.6 What dangerous goods are on the terminal at present?
- 2.7 What are the restrictions on handling dangerous goods?
- 2.8 What training is provided to the portworkers who are handling or transporting dangerous goods?
- 2.9 Where are the training records kept?
- 2.10 Where are the "prior notifications" for dangerous goods kept?
- 2.11 What are the procedures for dealing with notifications of dangerous goods?
- 2.12 How do you verify the information received on dangerous goods?
- 2.13 Who developed the procedures and working instructions related to the handling and transport of dangerous goods?
- 2.14 Where are these instructions kept?
- 2.15 Who supervises the handling and transport of dangerous goods?
- 2.16 Who is responsible for updating the emergency response plan?
- 2.17 What precautions are taken to avoid accidents involving dangerous goods?
- 2.18 How often are emergency response drills carried out?
- 2.19 Who is the "responsible person"?
- 2.20 What are his/her qualifications?
- 2.21 Who gives the permission for carrying out repairs, maintenance or "hot work"?

Section 8 (cont'd)

3. Portworker

- 3.1 What are dangerous goods?
- 3.2 How many classes of dangerous goods are there?
- 3.3 How do you know that you are handling dangerous goods?
- 3.4 What do you know about the risks and dangers inherent in the particular dangerous goods that you handle?
- 3.5 What special precautions do you have to take when handling dangerous goods?
- 3.6 Who advises you regarding special equipment to use for the operation?
- 3.7 Who advises you on the specific risk of an operation to be carried out?
- 3.8 Why are you not wearing / do you not wear protective clothing?
- 3.9 What do you do if a container carrying dangerous goods is leaking?
- 3.10 When were you last trained on the handling of dangerous goods?
- 3.11 What were the topics of your last training on the handling of dangerous goods?

CoP Section 9 - Health

9.1 Health hazards

| No. | Question | Reference | Auditor's findings |
|-------|--|---------------------|--------------------|
| 106.1 | How do you ensure that portworkers are fit for the work which they are employed to carry out? | Paragraph 9.1.1.1 | |
| 106.2 | How do you monitor the portworkers' health and fitness for work? | Paragraph 9.1.1.2 | |
| 106.3 | How does your risk management system relating to health risks work? | Paragraph 9.1.1.3 | |
| 106.4 | How do you provide portworkers with information on the hazards involved in their work and on what precautions to take? | Paragraph 9.1.1.6 | |
| 107.1 | What are the procedures for handling fumigated cargo transport units? | Paragraph 9.1.2.3/4 | |
| 107.2 | Where do you fumigate cargo? | Paragraph 9.1.2.5 | |
| 107.3 | What measures are taken to safeguard the health of portworkers handling fumigated bulk cargoes? | Paragraph 9.1.2.7 | |
| 108.1 | How do you prevent the exposure of portworkers to dust? | Paragraph 9.1.3.1 | |
| 108.2 | What measures are taken to control dust emissions? | Paragraph 9.1.3.3 | |
| 108.3 | How does your ventilation system function? | Paragraph 9.1.3.5 | |
| 108.4 | How often do you clean accumulated dust and residues? | Paragraph 9.1.3.6 | |
| 108.5 | How do you prevent the exposure of portworkers to asbestos fibre? | Paragraph 9.1.3.9 | |

Section 9 (cont'd)

| No. | Question | Reference | Auditor's findings |
|-------|--|---------------------|--------------------|
| 109.1 | What personal protective equipment is provided to prevent risks of infections during handling of cargoes that may present such a risk? | Paragraph 9.1.4.1/2 | |
| 109.2 | Who provides medical supervision? | Paragraph 9.1.4.1/2 | |
| 109.3 | How do you ensure that radioactive materials to be handled do not exceed international transport index limits? | Paragraph 9.1.4.4 | |
| 110.1 | How do you monitor noise levels? | Paragraph 9.1.5.1 | |
| 110.2 | What is the maximum acceptable noise level? | Paragraph 9.1.5.4 | |
| 111.1 | How many official breaks do you have during a shift? | Paragraph 9.1.6.1 | |
| 111.2 | What are the shift hours? | Paragraph 9.1.6.2 | |
| 112.1 | What preventive measures are in place to avoid excessive exposure to fumes? | Paragraph 9.1.7.4 | |
| 112.2 | Who performs the profiling of holds with regard to the exposure to fumes? | Paragraph 9.1.7.5 | |
| 112.3 | What measures are in place to prevent the exposure of crane drivers to fumes from the ship's funnels? | Paragraph 9.1.7.13 | |

Section 9 (cont'd)

| No. | Question | Reference | Auditor's findings |
|------------|--|---------------------------|---------------------------|
| 113.1 | How do you ensure that the maximum eight-hour exposure level to vibrations is not exceeded? | Paragraph 9.1.8.1 | |
| 113.2 | How do you perform the risk assessment regarding exposure to vibrations? | Paragraph 9.1.8.2 | |
| 114. | What are the relief intervals for portworkers exposed to high temperatures? | Paragraph 9.1.9 | |
| 115.1 | Who is the competent person to check portworkers accidentally exposed to health hazards? | Paragraph 9.1.10.1 | |
| 115.2 | What advice is given to portworkers handling harmful substances with regard to changing of clothes and cleaning? | Paragraph 9.1.10.2 | |
| 115.3 | For which groups of portworkers has health protection surveillance been introduced? | Paragraph 9.1.10.3 | |
| 115.4 | Who provides training to portworkers who have to handle heavy loads manually? | Paragraph 9.1.10.4 | |
| 116.1 | How do you ensure that workplaces, work systems and work equipment comply with good ergonomic principles? | Paragraph 9.1.11.1 | |
| 116.2 | What aspects in relation to ergonomic design do you consider when you buy equipment with operator's cabs? | Paragraph 9.1.11.2 | |

Section 9 (cont'd)**9.2 Occupational health services**

| No. | Question | Reference | Auditor's findings |
|------------|---|--------------------------|---------------------------|
| 117.1 | What are your practices with regard to the detection and monitoring of work-related injuries and occupational diseases? | Paragraph 9.2.1.2 | |
| 117.2 | What are the legal requirements regarding medical evaluation programmes? | Paragraph 9.2.1.3 | |
| 118.1 | Where are the offices of the occupational health services located? | Paragraph 9.2.1.5 | |
| 118.2 | What are the office hours of the occupational health services? | Paragraph 9.2.1.5 | |
| 118.3 | What services are provided by the occupational health services? | Paragraph 9.2.1.3 | |
| 119.1 | How many first-aid stations do you have? | Paragraph 9.2.2.1 | |
| 119.2 | How are these first-aid stations identified? | Paragraph 9.2.2.2 | |
| 119.3 | What are the national legal requirements regarding the equipment to be available in first-aid stations? | Paragraph 9.2.2.2 | |
| 119.4 | What are the qualifications of the personnel providing first aid? | Paragraph 9.2.2.3 | |
| 119.5 | What first-aid facilities are provided in areas where corrosive substances are handled? | Paragraph 9.2.2.4 | |
| 119.6 | What organizations participate in providing first aid? | Paragraph 9.2.2.5 | |

Section 9 (cont'd)

| No. | Question | Reference | Auditor's findings |
|------------|---|-------------------|---------------------------|
| 120.1 | Who employs the personnel providing first aid? | Paragraph 9.2.3.1 | |
| 120.2 | What are the minimum qualifications of personnel providing first aid? | Paragraph 9.2.3.2 | |
| 120.3 | What instruments stipulate the national legal requirements regarding the minimum qualifications of personnel providing first aid? | Paragraph 9.2.3.2 | |

CoP Section 10 - Welfare facilities

10.1 General provisions

| No. | Question | Reference | Auditor's findings |
|-------|--|-------------------|--------------------|
| 121.1 | What types of personnel welfare facilities are provided? | Paragraph 10.1.1 | |
| 121.2 | Where are the personnel welfare facilities located? | Paragraph 10.1.1. | |
| 121.3 | What standards have to be maintained for personnel welfare facilities? | Paragraph 10.1.2 | |
| 121.4 | Who is responsible for the maintenance of these facilities? | Paragraph 10.1.2 | |

10.2 Toilet facilities

| | | | |
|-------|--|-----------------------|--|
| 122.1 | What are the national legal requirements regarding the minimum standards for toilet facilities? | Paragraph 10.2.1 / 2 | |
| 122.2 | Where are toilet facilities located? | Paragraph 10.2.3 | |
| 122.3 | What is the location of toilet facilities for portworkers working on a ship? | Paragraph 10.2.4 | |
| 122.4 | What type of toilet facilities are provided ashore and on harbour crafts or workboats operated by portworkers or on which they work? | Paragraph 10.2.5 / 6 | |
| 122.5 | What was the basis for establishing the number of toilet facilities to be provided? | Paragraph 10.2.7 | |
| 122.6 | How did you deal with the gender issue and the needs of disabled persons? | Paragraph 10.2.8 / 14 | |
| 122.7 | How are toilet facilities equipped? | Paragraph 10.2.9 - 13 | |

Section 10 (cont'd)**10.3 Washing facilities**

| No. | Question | Reference | Auditor's findings |
|-------|--|-------------------------|--------------------|
| 123.1 | What washing facilities are provided? | Paragraph 10.3.1 | |
| 123.2 | What was the basis for establishing the number of washing facilities to be provided? | Paragraph 10.3.2 | |
| 123.3 | What is the difference between washing facilities provided for female and male portworkers? | Paragraph 10.3.3 | |
| 123.4 | How are toilet facilities equipped? | Paragraph 10.3.4 / 6/ 7 | |
| 123.5 | What shower facilities are provided for portworkers exposed to skin contamination by toxic, infectious or irritating substances oil, grease or dust? | Paragraph 10.3.5 | |
| 123.6 | What are the cleaning schedules for washing facilities? | Paragraph 10.3.8 | |

10.4 Clothing accommodation

| | | | |
|-------|---|--------------------|--|
| 124.1 | What types of cloakrooms are provided and where are they located? | Paragraph 10.4.1 | |
| 124.2 | How are the cloakrooms equipped? | Paragraph 10.4.2 | |
| 124.3 | Where are the cloakrooms for female portworkers located? | Paragraph 10.4.3/4 | |
| 124.4 | How do you ensure that cloakrooms are not used for other purposes? | Paragraph 10.4.5 | |
| 124.5 | What are the health authorities' requirements regarding disinfection of cloakrooms and lockers? | Paragraph 10.4.6 | |

Section 10 (cont'd)**10.5 Drinking water**

| No. | Question | Reference | Auditor's findings |
|------------|---|------------------|---------------------------|
| 125.1 | How do ensure that an adequate supply of cool and wholesome drinking water is available? | Paragraph 10.5.1 | |
| 125.2 | How many drinking water outlets are provided? | Paragraph 10.5.2 | |
| 125.3 | How are drinking water outlets identifiable? | Paragraph 10.5.3 | |
| 125.4 | How do you ensure that portworkers are aware that water coming out of a water outlet is not suitable for drinking? | Paragraph 10.5.4 | |
| 125.5 | What type of water outlets are provided? | Paragraph 10.5.5 | |
| 125.6 | Where are cup dispensers located? | Paragraph 10.5.6 | |
| 125.7 | How do you provide drinking water for portworkers on board harbour crafts or on any other craft operated by them or on which they work? | Paragraph 10.5.7 | |

Section 10 (cont'd)

10.6 Mess rooms and canteens

| No. | Question | Reference | Auditor's findings |
|-------|--|---------------------|--------------------|
| 126.1 | How many mess rooms or canteens are available? | Paragraph 10.6.1 | |
| 126.2 | What material was used for the floors of your mess rooms or canteens? | Paragraph 10.6.2 | |
| 126.3 | How are mess rooms or canteens equipped? | Paragraph 10.6.3/4 | |
| 126.4 | Who is responsible for cleaning mess rooms or canteens? | Paragraph 10.6.5 | |
| 126.5 | What type of water outlets is provided? | Paragraph 10.6.5 | |
| 125.6 | What prohibitions are in force concerning the use of mess rooms or canteens for the consumption of food and beverages? | Paragraph 10.6.6./8 | |
| 126.7 | How do you ensure that no alcoholic beverages are sold in mess rooms or canteens? | Paragraph 10.6.7 | |

10.7 Hiring halls and waiting rooms

| | | | |
|-------|--|--------------------|--|
| 127.1 | Where do employers and portworkers meet to agree on terms of employment and make up gangs? | Paragraph 10.7.1 | |
| 127.2 | How many waiting rooms are provided for portworkers? | Paragraph 10.7.2 | |
| 127.3 | How are the hiring halls and waiting rooms equipped? | Paragraph 10.7.3/4 | |

CoP Section 11 - Emergency arrangements

11.1 Emergency arrangements on shore and ship

| No. | Question | Reference | Auditor's findings |
|-------|---|------------------------|--------------------|
| 128.1 | What international instruments were consulted when your accident-prevention measures and emergency plans were being prepared? | Paragraph 11.1.1.1 | |
| 128.2 | What training is provided to portworkers and personnel of other emergency services to prepare them for dealing with an emergency? | Paragraph 11.1.1.2 | |
| 128.3 | What types of potential emergencies were considered when preparing your emergency plans? | Paragraph 11.1.1.3 / 4 | |
| 129.1 | What is the number of first-aid boxes and first-aid personnel stipulated in your emergency plan? | Paragraph 11.1.2.1 | |
| 129.2 | Who provides ambulance services and what is the telephone number where they can be reached? | Paragraph 11.1.2.1 | |
| 129.3 | How do you ensure that first-aid personnel reach injured people wherever they are? | Paragraph 11.1.2.2 | |
| 130.1 | What measures are in place to rescue injured persons from areas with difficult access? | Paragraph 11.1.3.1 / 2 | |
| 130.2 | Where are the areas with difficult access for emergency service located? | Paragraph 11.1.3.1.2 | |
| 130.3 | Where is the special equipment located that is required to rescue injured people from areas with difficult access? | Paragraph 11.1.3.2 | |

Section 11 (cont'd)

| No. | Question | Reference | Auditor's findings |
|-------|---|---------------------|--------------------|
| 131.1 | What measures are in place to prevent injuries in case of damage to property? | Paragraph 11.1.4.1 | |
| 131.2 | What special equipment, facilities and personnel are available for dealing with accidents involving damage to property? | Paragraph 11.1.4.2 | |
| 132.1 | What actions are stipulated in the emergency plan for dealing with fires? | Paragraph 11.1.5.3 | |
| 132.2 | How and where do you ensure that no one is missing when the facility has to be evacuated? | Paragraph 11.1.5.4 | |
| 132.3 | Who is trained in the use of fire extinguishers, and how often? | Paragraph 11.1.5.5 | |
| 132.4 | How do you ensure that emergency services always have access to any point within your facility? | Paragraph 11.1.5.6 | |
| 132.5 | How often are fire drills carried out and who participates in them? | Paragraph 11.1.5.7 | |
| 132.6 | What are the arrangements for fighting fire on board a ship within the port area? | Paragraph 11.1.5.8 | |
| 132.7 | What special fire precaution measures have been agreed with the local fire authority? | Paragraph 11.1.5.8 | |
| 132.8 | How many fire authorities are there and how is coordination among them assured? | Paragraph 11.1.5.9 | |
| 132.9 | What are their areas of responsibility? | Paragraph 11.1.5.10 | |

Section 11 (cont'd)

| No. | Question | Reference | Auditor's findings |
|------------|---|--|---------------------------|
| 133.1 | What measures are in place to deal with dangerous cargo leakages and spillages: a) on shore? b) on board ships? | Paragraph 11.1.6.1 11.1.6.3 | |
| 133.2 | What special training is provided to the emergency services so that they can safely handle dangerous cargo leakages and spillages? | Paragraph 11.1.6.2 | |
| 133.3 | What special facilities are available to handle damaged dangerous goods and residues of such goods? | Paragraph 11.1.6.4 / 5 | |
| 134.1 | What means are provided for persons to escape rapidly when they have fallen into water? | Paragraph 11.1.7.1 | |
| 134.2 | What type of lifejackets are provided to portworkers working in areas where there is the possibility that they may fall into the port waters? | Paragraph 11.1.7.2 / 3 | |
| 134.3 | How do you ensure rapid assistance to persons having fallen into water? | Paragraph 11.1.7.4 | |
| 134.4 | What type of rescue boats are available? | Paragraph 11.1.7.5 | |
| 134.5 | What training is provided to the portworkers and first-aid personnel to deal with people who have fallen into water? | Paragraph 11.1.7.6 / 7 | |
| 135. | What alternative measures are contained in your emergency plans, if essential emergency services fail to provide the service expected because of an adverse situation beyond their control? | Paragraph 11.1.8 | |

Section 11 (cont'd)

| No. | Question | Reference | Auditor's findings |
|-------|---|--------------------|--------------------|
| 136.1 | What severe weather and other natural hazards have been considered when preparing emergency scenarios? | Paragraph 11.1.9.1 | |
| 136.2 | What actions are planned if severe adverse weather conditions are forecast? | Paragraph 11.1.9.2 | |
| 136.3 | What precautions are taken in conditions or snow and ice? | Paragraph 11.1.9.3 | |
| 136.4 | What precautions are taken to prevent portworkers being exposed to adverse (low or high) temperatures for an extended period? | Paragraph 11.1.9.4 | |
| 137. | What precautionary emergency measures were introduced based on the advice given in the ILO code of practice <i>Prevention of major industrial accidents</i> ? | Paragraph 11.1.10 | |

11.2 Emergency planning

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|-------|---|--------------------|--|
| 138.1 | What international guidance was consulted when you prepared your emergency plan? | Paragraph 11.2.1.1 | |
| 138.2 | How were the individual port facility emergency plans included in your port emergency plan to ensure harmonization and consistency? | Paragraph 11.2.1.2 | |
| 138.3 | How was the harmonization of the port emergency plan with the national and local plans as well with the emergency plans of adjacent installations achieved? | Paragraph 11.2.1.3 | |

Section 11 (cont'd)

| No. | Question | Reference | Auditor's findings |
|------------|---|--------------------|---------------------------|
| 139.1 | What are the objectives of your emergency plan? | Paragraph 11.2.2.1 | |
| 139.2 | What area does your port emergency plan cover? | Paragraph 11.2.2.2 | |
| 139.3 | What accident scenarios are covered by your emergency plan? | Paragraph 11.2.2.3 | |
| 139.4 | How do you ensure that security arrangements do not cause delays to emergency response organizations? | Paragraph 11.2.2.4 | |
| 140.1 | What is the organization responsible for developing and publishing the overall port emergency plan? | Paragraph 11.2.3.1 | |
| 140.2 | Within that organization, who is the person responsible for developing and updating the plan? | Paragraph 11.2.3.2 | |
| 140.3 | Where do you keep the list of persons responsible within the terminals for developing and updating the terminal emergency plan? | Paragraph 11.2.3.3 | |
| 141.1 | What is the organization responsible for developing and publishing the overall port emergency plan? | Paragraph 11.2.4.1 | |
| 141.2 | What is the consultation process when preparing or updating your emergency plan? | Paragraph 11.2.4.2 | |

Section 11 (cont'd)

| No. | Question | Reference | Auditor's findings |
|------------|---|---------------------------------|---------------------------|
| 142.1 | What main factors were considered in the preparation of your emergency plan? | Paragraph 11.2.5.1.1 | |
| 142.2 | What is the framework for your emergency plan? | Paragraph 11.2.5.1.2 | |
| 142.3 | What particular circumstances were taken into account when preparing your emergency plan? | Paragraph 11.2.5.1.3 | |
| 142.4 | How many procedures and supplements to them does your emergency plan contain? | Paragraph 11.2.5.1.4 / 6 | |
| 142.5 | What types of emergencies are covered by your emergency plan? | Paragraph 11.2.5.1.5 | |
| 143.1 | Who has been officially appointed as the main controller and the incident controller? | Paragraph 11.2.5.2.1/2/5 | |
| 143.2 | What are the responsibilities of the main controller and the incident controller? | Paragraph 11.2.5.2.4 | |
| 143.3 | Who has been officially appointed as the main controller and the incident controller? | Paragraph 11.5.2.5 | |
| 143.4 | Who are their substitutes? | Paragraph 11.2.5.2.6 | |
| 143.5 | What are the roles of the important persons listed in your emergency plan, especially those of the incident controller and the main controller? | Paragraph 11.2.5.2.7 | |

Section 11 (cont'd)

| No. | Question | Reference | Auditor's findings |
|-------|--|--------------------------|--------------------|
| 144.1 | What are the principal tasks of the main controller and the incident controller? | Paragraph 11.2.5.3.1 / 2 | |
| 144.2 | Where are they located during an emergency? | Paragraph 11.2.5.3.1 / 2 | |
| 144.3 | How is communication between the main controller and the incident controller ensured? | Paragraph 11.2.5.3.4 | |
| 145.1 | Where is emergency control centre located and how it is equipped? | Paragraph 11.2.5.4.1 | |
| 145.2 | Where do you keep the list of specialists to be called upon during an emergency, when appropriate? | Paragraph 11.2.5.4.2 | |
| 145.3 | What facilities are provided for media representatives? | Paragraph 11.2.5.4.3 | |
| 146.1 | When was your emergency plan last published? | Paragraph 11.2.5.5.1 | |
| 146.2 | What types of emergency exercise do you carry out and at what intervals? | Paragraph 11.2.5.5.2 | |
| 146.3 | Where are the review procedures for the emergency plans? | Paragraph 11.5.2.5.3 | |

Section 11 (cont'd)**11.3 Emergency equipment**

| No. | Question | Reference | Auditor's findings |
|--------------|---|-----------------------------|---------------------------|
| 147.1 | What emergency equipment do you have? | Paragraph 11.3.1 | |
| 147.2 | Where do you keep the checklists of emergency equipment for injured people? | Paragraph 11.3.2 | |
| 147.3 | What suitable means are available to assist persons who have fallen into the water? | Paragraph 11.3.3 | |
| 147.4 | What spillage control equipment is available in accordance with the emergency plan? | Paragraph 11.3.4 | |

CoP Section 12 - Other relevant safety matters

12.1. Environment

12.1.1. General requirements

1. Port authorities should promote sustainable development and exercise control over their activities by applying environmental protection policies to their operations.
2. This can be achieved by developing an environmental management system that will implement management and control methods that prevent or minimize damage to the environment.
3. Many of the precautions detailed elsewhere in this code of practice which are intended to prevent injury and ill health to portworkers should also be beneficial to the environment. The precautions described in this chapter are not aimed at the prevention of injury or ill health.

12.1.2. Environmental management systems

1. A suitable environmental management system should include –
 - an environmental policy statement;
 - suitable objectives and targets;
 - allocation of environmental protection responsibilities to individual workers;
 - environmental awareness training;
 - environmental management practices;
 - assessment of compliance and effectiveness;
 - periodical review of the environmental protection programme.
2. The policy statement should clearly state the port authority's commitment to environmental protection.
3. The objectives should include –
 - identifying key environmental implications for the authority's port operations in order that managers and supervisors understand the relationship between port work and the environment;
 - identifying relevant key national environmental legal requirements;
 - ensuring that managers and supervisors are suitably and adequately trained to carry out their environmental responsibilities;
 - ensuring that assessments of possible environmental impacts are carried out before acceptance of cargoes that might have the potential to harm the environment;
 - providing guidance on environmental management practices in order to minimize the risks associated with port operations;
 - dealing properly with complaints.
4. International standard ISO 14001 *Environmental management systems – Specifications with guidance for use* gives general guidance on maintaining a satisfactory quality of environmental provision.

| No. | Question | Reference | Auditor's findings |
|-------|--|------------------|--------------------|
| 148.1 | What is your environmental policy statement? | Paragraph 12.1.1 | |
| 148.2 | How do you promote sustainable development with respect to environmental protection? | Paragraph 12.1.1 | |

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|-------|---|--------------------|--|
| 149.1 | What is the set-up of your sustainable environmental management system? | Paragraph 12.1.2.1 | |
| 149.2 | What procedures in your management system deal with environmental protection? | Paragraph 12.1.2.2 | |

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|------|--|--------------------|--|
| 150. | What is your environmental policy statement? | Paragraph 12.1.2.2 | |
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| 151. | What are the objectives of your sustainable environmental management system? | Paragraph 12.1.2.3 | |
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|------|--|--------------------|--|
| 152. | Which international standards were consulted when your sustainable environmental management system was introduced? | Paragraph 12.1.2.4 | |
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Section 12 (cont'd)

5. All workers involved in port operations should be given appropriate responsibility, within their normal functions, to ensure that the environmental management system is complied with and is successful.

12.1.3. Environmental aspects of port operations

Potential environmental concerns that may arise from port operations include –

- emissions to air;
- releases to water;
- land contamination;
- nuisance and other local community issues, e.g. noise, dust and odours;
- waste and its management.

12.1.4. Precautions

1. Every effort should be made to eliminate, restrict, control or minimize environmental concerns. Equipment design, site layout and work systems and arrangements should be organized with such objectives in mind.

2. In particular:

- every effort should be made to prevent dust or fumes becoming airborne and spreading into the atmosphere and the surrounding neighbourhood;
- every effort should be made to avoid spillage of cargoes into the water;
- any spillage on the terminal should be cleared up quickly and safely. It should not be washed into the drains where it might pollute the water or the land;
- every effort should be made to reduce noise emissions that might disturb nearby neighbourhoods, especially during work outside normal hours;
- consideration should be given to lighting arrangements that avoid undue glare disturbing nearby neighbourhoods.

12.2 Security

Port-related security issues should be addressed in accordance with the ILO/IMO code of practice *Security in ports* (2004), and, as appropriate, with the IMO's *ISPS Code, 2003 edition (International Ship and Port Facility Security Code and SOLAS Amendments, 2002)*.

| No. | Question | Reference | Auditor's findings |
|------|--|--------------------|--------------------|
| 153. | What are your responsibilities under the sustainable environmental management system (<i>question put to workers</i>)? | Paragraph 12.1.2.5 | |

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| 154. | What environmental aspects have been addressed in your management system? | Paragraph 12.1.3 | |
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|------|---|--------------------|--|
| 155. | What efforts are made to eliminate, restrict, control or minimize environmental concerns? | Paragraph 12.1.4.1 | |
|------|---|--------------------|--|

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|-------|---|--------------------|--|
| 156.1 | How do you control emissions to air? | Paragraph 12.1.4.2 | |
| 156.2 | What arrangements are in place to contain and clear up spillages? | | |
| 156.3 | What noise emission reduction measures are in place? | | |
| 156.4 | How do you contain dust emitted during cargo operations? | | |
| 156.5 | How do you avoid disturbance by lighting? | | |

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| 157. | How do you ensure compliance with the security measures required under the ILO/IMO code of practice <i>Security in ports</i> and IMO's <i>ISPS Code</i> ? | Paragraph 12.2 | |
|------|---|----------------|--|