ICHCA International Limited

INTERNATIONAL SAFETY PANEL

RESEARCH SERIES #3

Health & Safety Assessments in Ports

by

Harri Halme

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ICHCA International Limited
Suite 2, 85 Western Road,
Romford, Essex, RM1 3LS
United Kingdom

Tel: *+44 (0) 1708 735295*
Fax: *+44 (0) 1708 735225*
Email: *info@ichcainternational.co.uk*
Website: *www.ichcainternational.co.uk*

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This publication is one of a series developed by the International Safety Panel ("Safety Panel") of ICHCA International Limited ("ICHCA"). The series is designed to inform those involved in the cargo-handling field of various practical health and safety issues. ICHCA aims to encourage port safety, the reduction of accidents in port work and the protection of port workers' health.

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About the Author

Harri Halme
Senior Safety Officer

Harri Halme works for the Finnish Ministry of Social Affairs and Health. He has had a long experience in government administration concerned with occupational safety and health. He is involved with the development of safety management systems and risk assessment in the workplace and management in the field operations of districts.

His duties also include co-ordinating labour inspection in Finland especially in port and onboard vessels. Ha has studied occupational safety matters and logistics in ports extensively and graduated with a M.Sc. and Tech.Lic at the Tampere University of Technology. He is familiar with international practices in the stevedoring industry due to his membership of the International Safety Panel.

Halme has participated in the development of safety assessments for enterprises and trained safety assessment inspectors. He has developed safety systems inspections for Finnish labour inspection activities using modern assessment methods for modern enterprises.

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Health and Safety Assessments in Ports

1. INTRODUCTION

1.1 Background

1.1.1 This research paper has been developed in the light of experience with modern techniques of assessment of occupational health and safety performance in industry. Some new elements have been included in this revised edition taking into consideration developments in safety management systems. The assessment emphasizes the systematic work of analysing. It is intended for persons who work with Health & Safety matters in ports. The International Safety Panel hopes that the publication of this booklet will contribute to the improvement of health & safety in port operations, give new information to some readers and perhaps stimulate new ideas.

1.1.2 Health and safety can be assessed by various methods. The method set out in this research paper has many points in common with quality assurance audits. It is carried out by comparing the Health & Safety activities of an organisation with known good practice. The method is offered for use internationally so that it will be possible to audit against common standards.

1.1.3 Throughout this pamphlet the word “Safety” shall be considered to include the word “Health”.

1.2 Aim

1.2.1 The aim of the assessment should be to assess Safety systems and functions as factors of proper safety management. Using this methodology both systems and management, which have an influence on everything, are examined.

1.2.2 The results of the assessment should identify matters which are essential to improve safety activities and performance.

1.3 Method

1.3.1 A suitably trained person, or group of persons, from the organisation should check all the different functions, activities and operations in the port and evaluate and prioritise all problems found. The assessment can be carried out with the help of a consultant but this may not be necessary.

1.3.2 The assessment in section 2 is divided into nine parts. This research paper guides the assessor(s) or the assessment group to analyse the target area, item or corporate section and to identify problems and evaluate their severity and importance.

1.3.3. The assessor(s) should go through each item of each section and consider each question. The assessment should be completed by checking a number of points in practice; for example, tidiness and cleanliness, lifting plant certificates and records, emergency plans, etc.

1.3.4 Every question should be answered “yes” or “no” and the details transferred to the assessment form (appendix 1). Where appropriate written comments a report should be made at the same time. The numbers on the assessment form should be added up for each section, totaled and then divided by the

pre-printed number to arrive at a numeric value for the section. The health & safety profile (Appendix 2) can then be completed and the total compared with the safety level table on page 18.

1.3.5 Some items have more questions than others. The number of questions is not intended to correspond to the five levels listed in the health & safety level table on page 18 If more detailed information can be gained from the questions then this should help assessors make a better evaluation.

1.4 Results

1.4.1 Following the systematic examination of all the significant factors, this method of safety assessment identifies the most important areas recognised by all as defects in the management of safety. The assessment gives a reliable view of the health & safety performance of the organisation, or the parts of it that are reviewed. The defects found and the actions that need to be taken can be classified and prioritised, thus enabling management to make the necessary decisions.

1.4.2 Management can also develop a detailed action plan, with a schedule which includes targets, to which everyone is committed. The Safety profile shows the relationships between different sections. An assessment and its results give a good basis for benchmarking other companies.

1.4.3 A reassessment, after a suitable period, should show how progress is being made.

2 THE ASSESSMENT

2.1 Introduction

2.1.1 The assessment that follows is divided into nine parts (2.2 to 2.10). Each part consists of a statement followed by a series of questions. By answering each question “Yes” or “No” the assessor(s) will understand how well the safety policy, and its management, is being put into practice. The questions are structured so that the last one is usually the most demanding.

2.1.2 The first step is to make copies of the Assessment Form and Safety Profile Form. Fill in on the Assessment Form the number of “Yes” answers of each section. Add up the total and divide by the pre-printed number in the total box. You will now arrive at a profile number.

2.1.3 By completing the area on the safety profile, from the profile number, you will identify the strong areas and the weak points. By further analysing the responses in the various areas you should be able to enhance your plans for health & safety.

2.2 Port Management and the Health & Safety Policy

The organisation’s safety policy should be established by senior management. Implementation of the safety policy should be delegated to line management or supervisors.

2.2.1 Health and Safety Policy

2.2.1.1 Senior port management cannot absolve themselves of responsibility by delegation but will need to continue to have overall control of the policy. The

delegated responsibility should be assessed periodically, e.g. annually, as part of the line managers' and supervisors' performance review or when these roles and responsibilities are re-assessed.

Questions:

a) Is there a health and safety policy?
b) Are there clear health and safety aims?
c) Is the policy reviewed periodically?
d) Have responsibilities been delegated to line management?
e) Do these responsibilities form part of the person's job description?
f) Do the duties of supervisors include Safety responsibilities?

2.2.2 Health and Safety Performance

Senior port management should actively control Safety policy and performance. Safety, therefore, should always be an agenda item at management meetings. Safety performance should be treated in the same way as any other activity, with managers' active participation in the consideration of reports, statistics and other performance indicators along with decisions on appropriate action to be taken.

Questions:

a) Is safety performance measured?
b) Is a periodic review of safety performance carried out?
c) Does the review include occupational diseases as well as accidents and incidents?
d) Is safety always an agenda item at management meetings?
e) Is there a knowledge management system to ensure sufficient competency?
f) Is it ensured that there are adequate resources in the line management?

2.2.3 Emergency Plans*

All reasonably foreseeable types of emergencies should have been taken into consideration in preparing the emergency plan. There should be regular practice of the plan in order to ensure its effectiveness.

Questions:

a) Is there an emergency plan in place?
b) Is the plan signed, dated and published?
c) Does it cover all foreseeable emergencies?
d) Does the plan name responsible persons and their substitutes?
e) Is the plan periodically tested by exercises?
f) Is there regular cooperation with rescue authorities?
g) Does the plan provide for appropriate media briefing?

**for more detailed information see International Safety Panel Briefing Pamphlet # 6.*

2.2.4 Health & Safety Rules

The organisation should have developed appropriate Safety Rules for all work activities. These Rules should be published and distributed to all persons concerned. They should be reviewed periodically.

Questions:

a) Do Safety Rules exist for all work activities?
b) Are the Safety Rules published and publicised?
c) Are the Safety Rules given to those that need to work with them?
d) Are they reviewed periodically?
e) Are instructions of training and induction satisfactory enough?

2.2.5 Health & Safety Responsibility

2.2.5.1 Although senior port management remains responsible for the health & safety of the company's operations, the day to day implementation of the policy will necessarily be delegated to line managers and supervisors within the port.

2.2.5.2 These managers and supervisors must be aware of their vital role in ensuring that the safety policy is implemented in practice and that the relevant safety rules are followed.

Questions:

a) Have the responsibilities for safety in operation been properly identified?
b) Have the individuals concerned been trained in the operation of the safety policy?
c) Has the delegated authority been passed to the appropriate individuals?
d) Is the reporting structure clearly defined?

2.2.6 Monitoring Health & Safety

The fact that health & safety systems and rules may have been drawn up and approved by port management does not mean that they are always put into practice. It is, therefore, essential that the situation is monitored, at appropriate intervals, to ensure that the correct working procedures are being followed.

Questions:

a) Is continuous monitoring of the working procedures carried out?
b) Are the results of the monitoring reported?
c) Are the results filed for future reference?
d) Do the results include possible corrective actions?

2.2.7 Quality Policy

2.2.7.1 Quality assurance systems are primarily aimed at commercial matters but they have uses in all matters, especially where they define the methods by which operations should be carried out. These systems reduce the opportunity for deviations from the planned procedures thus avoiding unplanned actions that may result in accidents.

2.2.7.2 Where a quality system is in place, then the following questions should be asked.

Questions:

a) Does the quality system properly address safety matters?
b) Is the health & safety policy documented within the quality system?
c) Does the quality policy identify safety matters?
d) Is safety a regular feature of internal quality audit?
e) Does management follow through on the applicable corrective actions?

2.3 Co-operation

Co-operation between the various operators within the port and with the port authority or administration is essential both for good working practice and safety. A port can be owned by a private company or a community or it can be a part of a factory. The ownership means a lot when developing general rules and safety frames for port operation and taking account of responsibilities.

2.3.1 Port Operators and Users

Although it is normal for communication to take place regularly between port operators and the port administration as regulations are changed or imposed and with port users (customers), communication between the operators in a port is often less frequent and, if there is competition within the port, sometimes not at all.

Questions:

a) Are there regular channels of communication involving companies who operate in the port based on agreements and objectives set within those agreements?
b) Are there regular channels of communication between the port operators and the port authority or administration?
c) Are there regular channels of communication between the port operators and the port users?
d) Is there a method for consultation on relevant safety matters between users, operators and the port authority or administration?
e) Are the safety rules communicated to and understood by all the port users?

2.3.2 Development within the Port

Port development is usually target oriented. The participating operators within the port can develop individually, as a group or in conjunction with the port authority or administration. Safety benefits can be gained from co-operative development providing there is proper assessment of the needs of the port authority or administration and those of the port operators.

Questions:

a) Is the development of the operations in the port treated as something to be dealt with only by the developing organisation(s)?
b) Are joint meetings held on development aspects by all port operators?
c) Is there a joint development group that discusses development with the port authority or administration?
d) Does the port authority or administration develop areas of the port without consultation with the port operators?
e) Are safety matters properly considered by all parties within and using the port prior to commercial development taking place?

2.4 The Work Environment

This section should give an assessment of the level of safety in the work environment including the examination of physical hazards and the occurrence of accidents and incidents.

2.4.1 General Safety

Safety of both the workforce and the products moving through the port should be paramount. Proper planning of the work environment, including consideration of the potential hazards that may exist, and the need for equipment to ensure that all matters can be handled in a safe and secure way is important. A sound basis for safety improvements is a proper risk assessment at a work place.

Questions:

a) Are hazards and risks to workers´ safety and health identified and assessed?
b) Are there improvements carried out as a result of risk assessments?
c) Are safety aspects properly taken into account when planning the operation or operational changes within the organisation?
d) Are the regulations that apply met in full?
e) Is general maintenance carried out regularly (removing rubbish, clearing gangways, general tidiness, proper lighting, etc.)?

2.4.2 Safety of Machinery and Equipment

Safe use of machinery and equipment is usually a legal requirement. Most machinery and equipment, when provided as new, will have safety features built in, such as guards, operator cages, etc. The regular maintenance of these safety features, as well as the regular maintenance of the equipment for general use, is very important.

Questions:

a) Is safety properly taken into account when planning and purchasing equipment and machinery?
b) Do all pieces of equipment and all items of machinery comply with the applicable legislation or regulations?
c) Are all pieces of equipment and machinery routinely maintained at regular intervals?
d) Are the safety aspects of equipment and machinery checked at the same time as the routine maintenance?
e) Are records kept of all maintenance checks and all faults found?
f) Are all faults rectified before equipment and machinery is allowed back into use?

2.4.3 Ergonomics

In the planning of any process or work aspect, the need to include the ergonomic element should be high on the list of priorities. Considering this factor in the early stage of the process may reduce the probability of muscular-skeletal strain accidents.

Questions:

a) Is ergonomic assessment made in the planning stage of any work process and ergonomic problems dealt with before the process is put into operation?
b) When muscular-skeletal strains occur are these identified and treated rapidly as part of the normal safety routine?
c) Are muscular-skeletal strain elements properly identified and minimised?
d) Where monotonous repetitive tasks occur, are proper breaks at regular intervals built in to the work pattern?

2.4.4 Noise, Lighting and Occupational Air Contaminants

Port management's aim should be to ensure that noise levels are minimised; lighting is in good condition and of sufficient illumination to allow work to be carried out without putting any strain on the eyes; and air contaminants are properly filtered out of the air in closed working environments.

Questions:

a) Are continuous noise levels low?
b) Are continuous loud noises deadened effectively?
c) Is the level of lighting sufficient to see to work properly without additional direct lighting?
d) When lights fail, are they replaced immediately after notification of the failure?
e) When the port is working on a 24 hour basis, is the open site floodlighting bright enough to be able to see all areas without any additional lighting?
f) When working in a closed environment, is there proper extraction of dust or other air contaminants?
g) When working in a closed environment, is appropriate respiratory protective equipment provided when needed?

2.4.5 Lifting and Carrying

The act of manual lifting and carrying goods has a detrimental effect on the joints of the human frame. Continuous lifting and carrying can cause failure of the main joints (elbows or knees) and be the primary cause of back strain.

Questions:

a) Is lifting and carrying equipment provided for packages of different sizes and weights?
b) Is lifting and carrying equipment properly maintained?
c) Do all personnel, irrespective of whether site or office based, have lifting and carrying equipment available for use?
d) Does the work area have clearly defined routes for the use of lifting and carrying equipment?

2.5 Plant, Equipment and Personal protection

This section examines the safe use of tools and personal protective equipment ("PPE"). Good quality, safe tools and properly designed personal protective equipment are essential for safe working environments. The use

of PPE and its useable state are valid indicators of a well planned health and safety environment.

2.5.1 Condition of Tools

The age of equipment may have a bearing on whether parts are available for repairs. Modern tools tend to be more powerful and are often powered by safer means. Whatever the age of the tools, they should be maintained in a sound working condition and personnel trained in their correct use.

Questions:

a) Are tools in good repair and working order?
b) Have personnel been trained in the proper use of the tools?
c) Are any of the tools showing Safety defects?
d) Is there more than reasonable wear and tear on any of the handling parts of the tools?
e) Are the tools of modern design?
f) Are the tools repaired with manufacturers recommended parts?

2.5.2 Personal Protective Equipment

2.5.2.1 Personal Protective Equipment should be provided for all terminal employees and visitors, ie truck drivers, who are permitted to go into an area where there is a potential hazard which cannot be controlled by other means. PPE can take many forms such as steel toecap boots/shoes, hard hat, gloves and high visibility clothing at the basic level and full chemical suiting with breathing apparatus at a higher level. In an area where vehicles, straddle carriers, transtainers etc. are in constant use, all personnel should be issued with the basic level equipment as standard. Whatever level of PPE is issued, personnel should be trained in the proper use and maintenance of this equipment

2.5.2.2 Visitors to the organisation, who are likely to be going into the working area rather than remaining in the office, should at least be issued hard hats and high visibility waistcoats for the duration of their time in the working area to ensure that they have some protection.

Questions:

a) Is PPE available to *all* staff that need it for their regular work?
b) Is PPE available to staff that require it on an occasional basis?
c) Is PPE used*, when appropriate,* by *all* staff working on the site?
d) Is basic level PPE available for visitors to the site?
e) Are staff properly trained in the use of PPE?
f) Are staff trained in the maintenance of their personally issued PPE?
g) Is PPE well maintained?
h) Is non regular PPE released for use by supervisors?

2.5.3 Maintenance

2.5.3.1 Maintenance is important, but it becomes more so if it is not carried out regularly. Maintenance staff invariably work to set routines, such as manufacturers' maintenance programmes, and are often upset when called

upon to take immediate action on a piece of equipment that has failed due to not having undergone routine maintenance.

2.5.3.2 It is necessary, when planning maintenance, to consider the safety and operational aspects of the organisation. Taking too many lift trucks out for routine maintenance at the same time will cause overwork for the remaining units.

Questions:

a) Are there regular maintenance programmes and schedules is current use?
b) Is the maintenance schedule used as a basis for regular maintenance?
c) Is preventative maintenance, in addition to routine replacement, normally carried out on all equipment?
d) On what basis is preventative maintenance planned? [supplementary report required with objective assessment of whether the basis is good (7) or bad (0)]
e) When maintenance programmes and schedules are planned, are safety and operational matters taken into account?
f) When unplanned emergency maintenance is necessary, are safety matters taken into account?
g) On what basis is safety taken into account? [supplementary report required with objective assessment of whether the basis is good or bad].
h) Are signed records kept of all maintenance carried out?
j) Are operational supervisors given copies of the maintenance reports?

2.5.4 Reliability of Precautionary Systems

Precautionary systems such as sprinklers, fire fighting equipment, automatic lighting etc. require regular inspection to ensure that they will work when needed most - in an emergency. As with tools and equipment, regular checks on these specialised items should be carried out either by qualified staff or external organisations that specialise in precautionary systems.

Questions:

a) Are routine checks made on the precautionary systems?
b) Are the findings of these routine checks recorded?
c) If the results of the checks are not satisfactory, are they followed up and the deficiencies rectified within a very short time frame?
d) Are precautionary systems physically tested at regular intervals?

2.6 Transport

2.6.1 General

2.6.1.1 Safety and security performance in ports has changed transport arrangements during the last years. Nowadays transport is very controlled and movement especially allowed by a separate procedure in port areas. The movement of vehicles in a port is one of the largest elements in a health and

safety plan. All mobile equipment, irrespective of its possible speed of travel, should be properly controlled and, where necessary, directed. This should apply to both transport delivering or collecting containers and goods and to port organisation transport for movement of staff, ship's crew, visitors and maintenance operatives.

2.6.1.2 It may be necessary to segregate commercial and private transport. Many port operators ensure that a segregated car park is provided for staff and visitor's private cars. Internal vehicles are often clearly identified by being painted in the organisation's corporate colours and have an orange (or other applicable colour) flashing light mounted on the roof of the vehicle.

2.6.2. Traffic Plan

A good traffic plan will aid the operational control of the port. Thought should have been given to whether containers and goods are to be collected from, or delivered to, a segregated parking area by the port equipment or whether road vehicles are to be positioned for direct transtainer or crane lift of the container or goods.

Questions:

a) Does a traffic plan exist?
b) Has the traffic plan been developed in co-operation with the Port Authority or Administration?
c) Have other operators been consulted on the traffic plan?
d) Are all members of staff made aware of the traffic plan?
e) Are all visitors, users' representatives and crew members made aware of the traffic plan?
f) Does all traffic, irrespective of whether belonging to visitors, members of staff or crew, move in accordance with the traffic plan?

2.6.3 Traffic Safety

Once a traffic plan has been put into operation, it is essential that the transport movements within the port operation are monitored with a view to ensuring that the safety needs are met. Instructions may need to be changed in certain circumstances and therefore revised training may be required.

Questions:

a) Are the traffic plan and rules monitored?
b) Are the results of the monitoring made known to management at all levels?
c) Is there sufficient traffic signs clearly positioned within the port operation area?
d) If a one way system is in use, is the proper traffic flow always adhered to?
e) Are traffic system guidelines provided for all visitors?

2.6.4. Internal Traffic

Once transport vehicles are on the port site, dangers are increased. Safety requirements may vary considerably from one organisation to another. Special conditions may apply to pedestrians and drivers whilst out of their vehicles. Assuming that the only traffic on the site is delivery vehicles and

company, or company approved, vehicles with appropriate warning devices, then the danger areas can be minimised with good practice.

Questions:

a) Is traffic control within the site monitored?
b) Is the use of company site vehicles recorded and monitored?
c) Are traffic routes clearly identified for road and pedestrian traffic?
d) When traffic routes need to be changed, for operational reasons, is sufficient notice given of the change?
e) Are change of use/direction notices clearly positioned within the relevant operational area?

2.7 Communication and Information

2.7.1 General

2.7.1.1 A port or terminal is a complex environment, especially as vessels are multi-nationally crewed, transport is frequently driven by nationals of countries other than the one in which the port is based and the modern international transport operation is conducted in many languages.

2.7.1.2 At the present time there is no single, international standard for communication between ports in many countries, between ship and port and between captain and crew. Whilst such circumstances exist, great efforts need to be made to ensure that the correct information is transferred and that the transferred information is properly understood.

2.7.2 Languages to Ensure Understanding in the Port

2.7.2.1 Many languages may be needed in port operations, although the primary functional elements in a port may be communicable by the use of internationally recognised symbols. The use of these symbols is, of necessity, limited to simple instructions but is still likely to advance the safety element greatly.

2.7.2.2 Ships' masters often speak acceptable English, but may not have the linguistic ability to communicate in all of the languages of the countries on the vessels route. Some fluency or knowledge of the major languages of port users (shipping lines) would be of great benefit to promoting the safety aspect of port operations.

Questions:

a) Do the important port signs also contain internationally recognised symbols?
b) Does the port have staff who are able to speak one or more of the major international languages (English, French, German, Spanish, Italian, Arabic, Russian, and Mandarin/Cantonese)?
c) Is the port able to contact interpreters when required?
d) Does the port have translated copies of written instructions to assist ships' crews and other visitors?

2.7.3 Information

Passing on information about the port, its environment, its operation and its basic practices is very important both for the port and for those visiting the

port, whether seamen, transport drivers or other visitors. Likewise, receiving information from the ship regarding its preparedness, cargo, etc is essential for good port operation. Creating clear channels for the exchange of accurate information is essential if mishaps, and possibly disasters, are to be avoided.

Pictorial symbols are very useful in international environments.

Questions:

a) Are there clearly defined channels of communication?
b) Are these channels of communication properly funded to ensure continuity?
c) Are communicated messages tested for understanding?
d) Are all communications logical?
e) Is the use of these channels of communication understood by those using them?
f) Are failures in communication investigated?
g) Are the investigation findings acted upon in a prompt manner?
h) Where there is little, or weak information communicated, is the detail in the communication routinely verified? (ask for confirmation of the detail given)

2.7.4 Safety Information

Communicating information about safety matters is important for the good running of the operation and the well being of staff and visitors. This communication needs to be two way in order to gain benefits.

Questions:

a) Does the organisation arrange “theme” days on safety matters?
b) Are exhibitions, videos and demonstrations used as information media?
c) Is there a common area notice board where safety information can be found?
d) Do supervisors regularly go through safety instructions?
e) Do workers discuss defects with supervisors/managers?
f) Are accident statistics published internally?

2.8 Monitoring

Monitoring is an essential part of any good safety system. This is normally done by regular internal inspection of all areas of operation, including offices, within the organisation. However monitoring will have little effect if the information is just reported back to management and nothing happens.

2.8.1 Internal Inspections

Internal inspections aimed solely at safety matters should be carried out as part of a planned programme. The information gained should be analysed and reported. The report should be acted upon within a reasonable time frame to correct any safety problems.

Questions:

a) Is there a published safety inspection plan?

b) Are inspections carried out in accordance with the published plan?
c) Is all information gained analysed and reported?
d) Is the reported information acted upon by management?
e) Are internal safety inspections well organised?

2.8.2 Reporting and Handling of Accidents, Incidents and Hazardous Situations

It is important that accidents and incidents are reported properly, promptly and to the correct people. The personnel department may have a responsibility to prepare quarterly statistics on accidents and incidents for some external body, e.g. a Government enforcement authority. In addition, compiled statistical information can assist in training on Safety matters.

Questions:

a) Is there a proper, published routine for the reporting of accidents and incidents?
b) Are all accidents and incidents reported?
c) Are accident and incident statistics regularly considered by senior management?
d) Are the organisation's statistics published and used in training?
e) Are the country wide statistics (if available) published and used in training?
f) Are the accidents and incidents discussed in production planning meetings?

2.9 The Human Element

Human elements in the organisation may be assessed in various ways, this section looks at four key elements that can be assessed in order to arrive at a sensible outcome for safety matters.

2.9.1 Guidance and Training

Occupational safety training is important to the good operation of the organisation and the well being of the workforce.

Questions:

a) Are regular training sessions provided for all staff on safety matters?
b) Are these training sessions led by trained personnel?
c) Is the need for safety training properly evaluated?
d) Are the results/feedback from the safety training sessions evaluated?
e) Are safety analyses used in the safety training sessions?
f) Is safety guidance provided for special tasks?

2.9.2 Recruitment and Positioning

To obtain the maximum benefit from the recruitment of new staff, the health history of those persons should be known. When this is provided after commencement of work with the organisation, there should be flexibility about the role those persons will undertake in order to ensure that they do not work in an environment that will aggravate an historically known condition.

Questions:

a) Is the health history of all new recruits obtained?
b) Is the health history considered a relevant factor in the role to be undertaken by that person?
c) Are new members of staff required to undergo a medical examination by the company appointed doctor?
d) Is this medical examination provided without charge to the new member of staff?
e) Do some professions provide regular medical examinations eg drivers of container carriers or cranes?

Note: Medical records should always be treated in the strictest confidence with information being made available only to the examinee and the relevant personnel officer.

2.9.3 Work Instructions

Most people work more effectively if they have documented procedures and work instructions to follow. Where work instructions are in place, they will need occasional revision to match the changing emphasis of the job and they should also be subject to periodic review.

Questions:

a) Do written work instructions exist for all main tasks?
b) Do all staff follow the written work instructions?
c) Are the written work instructions reviewed periodically? (it is suggested that this should be annually).
d) When a job changes, are the revised written work instructions issued before the change is put into effect?

2.9.4 Permit to Work

Certain activities can be very dangerous to carry out and therefore only fully trained and protected staff should be allowed to do them. As a method of safety control, the system of permit to work may be used beneficially. This requires someone in authority to verify that the person intending to do the job has been trained, is properly dressed and has the proper equipment.

Questions:

a) Is there a permit to work system in place?
b) Is the permit to work issued by an authorised person who has the ability to verify that the appropriate training and other requirements have been met?
c) Is the issuing of permits to work recorded?
d) Are permits to work issued for working in enclosed spaces (tanks etc.)?
e) Are permits to work issued for hot work (welding, cutting, etc.)?

2.10 Dangerous Goods

2.10.1 General

2.10.1.1 This section looks at the handling of packaged dangerous goods. The International Maritime Dangerous Goods (“IMDG”) Code and any other regulations that apply locally must always be adhered to when handling dangerous goods and their implications considered. Most port operators have

gained the experience and skill in handling dangerous goods by the proper use of the IMDG Code and by working in conjunction with their regular clients to enhance their knowledge of most of the products that move through the port.

2.10.1.2 Some ports do not handle dangerous goods at the present time, but this does not mean that they will never handle dangerous goods. All port operational organisations should be aware of the regulations applicable to dangerous goods and have a practical working knowledge of the IMDG Code so that when dangerous goods are presented they are able to handle them efficiently and in a completely safe way.

2.10.2 Handling of Dangerous Goods in the Port

In order to handle dangerous goods in a safe manner, at least one person in the organisation should have a good working knowledge of the IMDG Code, or a consultant with the appropriate knowledge should be retained by the organisation. Staff should be aware of the identity of the knowledgeable person and be able to contact that person as circumstances arise that require the input of that knowledge.

Questions:

a) Is there an up to date copy of the IMDG Code available in the organisation?
b) Is there a trained and knowledgeable person available for consultation?
c) Are the knowledgeable person's contact details freely available?
d) Are the dangerous goods properly identified within the organisation's control system?
e) Are staff at all levels aware of the basic requirements for dangerous goods?
f) Is there a separate area for the holding of dangerous goods?
g) Is there unimpeded, direct access to the hazardous goods area for emergency services?
h) Are your customers aware of your requirements for dangerous goods?

Note: If your organisation does not handle any dangerous goods, then sections 2.9.2. to 2.9.4 may be disregarded in this assessment. Please mark on the assessment form that these sections are not applicable.

2.10.3 Documentation of Dangerous Goods

When dangerous goods are to be shipped/imported there is certain specific documentation required by the IMDG Code. How that documentation is treated may have a dramatic impact on the proper, safe, handling of the dangerous goods.

Questions:

a) Is there a system for receiving and checking dangerous goods documentation?
b) Does the above system cover all of the hours that the port is operational?
c) Does the system specify what should happen if the detail is incorrect or unclear?

d) Does the system specify what should happen if the Container Packing Certificate/Vehicle Declaration is improperly completed, or not completed at all?
e) Does the system require those persons who carry out the checks to be trained on the Code and the relevant requirements?
f) Are there records of such training?

2.10.4 Packing and Marking of Dangerous Goods in Containers and Vehicles

In order that dangerous goods may move safely, they are required to be labelled, marked, signed and placarded in accordance with the IMDG Code. Whilst the manufacturer, shipper or exporter of the goods will make the arrangement for the individual labelling, packing, placarding, marking or signing of receptacles and packages, the port operation should, where feasible, check that the packaging appears to be sound, and that the correct placarding, marking and signing has been applied to the container and/or vehicle.

Questions:

a) Is there a system for checking the placarding, marking and signing (as appropriate)?
b) Does this system cover all the hours that the port is operational?
c) Does the system specify what should happen if the placarding, marking and signing are not correct?
d) Are the persons who carry out the checks trained?
e) Is there a record of such training?

2.10.5 Other Sections of the Assessment applicable to Dangerous Goods

Most of the sections of this assessment will apply equally to dangerous goods. The rating given to those other sections should also apply to dangerous goods at the same level.

3 HEALTH AND SAFETY ASSESSMENT CALCULATIONS

3.1 *Apply the original rating to the following questions and then calculate in the same way (i.e. if under 2.4.4.- Precautionary systems the rating was 4, then apply that rating to 2.4.4 below and then add up the total and divide by the number of sections (11) and round down to the nearest whole number to arrive at the rating for this section).*

3.2 Other sections that apply:
Original score

a) 2.1.3 Emergency plans
b) 2.2.1 Co-operation - port operators including port administration
c) 2.3.1 The work environment - General Safety
d) 2.3.4 Noise lighting and occupational air contaminants
e) 2.3.5 Lifting or transporting
f) 2.4.4 Reliability of precautionary systems
g) 2.5.1 Traffic plan
h) 2.5.3 Internal traffic
i) 2.6.2 Communication - Information
j) 2.7.2 Monitoring - Reporting
k) 2.8.1 The human element - Guidance and Training

Total _____

_____ / 11

= Section Total of:

4 HEALTH AND SAFETY LEVEL RESULTS

In order to be able to assess where your organisation is in the safety league, it is suggested that you compare the results shown in the health & safety profile with the table below. Depending on the results obtained you will be able to identify whether the safety systems are good, mediocre, bad or non-existent.

Result	General opinion of health and safety in the organisation
>0.88	The management system is very good, safety matters are considered in many ways and there are several systems to keep the level high. All are committed, in one way or another, to safety.
0.75+	The workplace is generally safe and there are many routines to ensure safety. More safety systems can be established. The quality of the safety systems can be improved.
0.55+	Safety matters are considered important but health and safety can be improved. safety systems are not advanced. The way of thinking of safety can be developed.
0.4+	There are clear defects in health and safety. safety thinking is undeveloped and there are poor safety systems. Many possibilities exist to develop safety activities.
<0.4	A poor situation. Serious defects can be found.

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Luxembourg. 58s

The International Maritime Dangerous Goods (IMDG) Code. ICHCA International Safety Briefing Pamphlet #3.

Guidance on the Preparation of Emergency Plans. ICHCA International. Safety Briefing Pamphlet #6

Appendix 1

Assessment Form

Please complete each of the section boxes below with the number of "Yes" answers. Total the number for each main section and insert this in the total box. Dividing the total by the pre-printed number gives the profile number.

2.2 Management and the Health & Safety policy

2.2.1	2.2.2	2.2.3	2.2.4	2.2.5	2.2.6	2.2.7	Total	Profile
							/37	

2.3 Co-operation

2.3.2	2.3.3	Total	Profile
		/10	

2.4 The work environment

2.4.1	2.4.2	2.4.3	2.4.4	2.4.5	Total	Profile
					/26	

2.5 Plant, equipment & personal protection

2.5.1	2.5.2	2.5.3	2.5.4.	Total	Profile
				/27	

2.6 Transport

2.6.1	2.6.2	2.5.3	Total	Profile
			/16	

2.7 Communication & information

2.7.2	2.7.3	2.7.4	Total	Profile
			/18	

2.8 Monitoring

2.8.1	2.8.2	Total	Profile
		/11	

2.9 The human element

2.9.1	2.9.2	2.9.3	2.9.4	Total	Profile
				/20	

2.10 Dangerous goods

2.10.2	2.10.3	2.10.4		Total	Profile
				/19	

Appendix 2

Safety Profile

Fill in the results from the profile column of the assessment form for each main section.

	0.0 - 0.40	0.41 - 0.55	0.56 - 0.75	0.76 - 0.88	0.89 - 1.00
2.2 Management and the Health & Safety Policy					
2.3 Co-operation					
2.4 The work environment					
2.5 Plant, equipment & personal protection					
2.6 Transport					
2.7 Communication & information					
2.8 Monitoring					
2.9 The human element					
2.10 Dangerous goods					
	Poor	**Tolerable**	**Good**	**Good & Safe**	**Excellent**