

**Department of Economic Development
Isle of Man Ship Registry
Consultation Paper:
Maritime Labour Convention 2006
Title 4 – Health Protection, Medical Care,
Welfare and Social Security Protection.**

This consultation paper is part of a series setting out the Isle of Man Ship Registry's proposals for implementing the International Labour Organizations Maritime Labour Convention 2006 (MLC).

This paper documents proposals for implementation of the provisions of Title 4 – Health Protection, Medical Care, Welfare and Social Security Protection.

You are invited to examine these proposals and in particular the questions at the end of the paper, and provide written feedback to the Isle of Man Ship Registry by **25th November 2011**. Feedback can be accepted by mail or email and should be sent to:

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A public summary of the responses received to the consultation will be made available to the public within 3 months of the closing date of the consultation.

Background to the Maritime Labour Convention:

In 2006, the ILO adopted the Maritime Labour Convention (the MLC) which consolidates and updates more than 65 international maritime labour instruments adopted over the last 80 years. For the first time, the Convention provides a global legal instrument for maritime labour standards for the world's ship owners, seafarers and maritime nations. The Convention sets out a wide range of rights to decent working conditions for seafarers and covers subjects including health, safety, minimum age, recruitment, hours of work and other vital issues affecting seafarers' lives.

The Convention is made up of 3 related parts, the Articles, the Regulations and the Code. The Articles and Regulations set out the core rights and principles, the Code contains details for the implementation of the Regulations. The Code is made up of two parts, Part A mandatory standards and Part B non mandatory standards. The Regulations and the Code are organised into general areas under five titles:

Title 1: Minimum requirements for seafarers to work on a ship

Title 2: Conditions of employment

Title 3: Accommodation, recreational facilities, food and catering

Title 4: Health protection, medical care, welfare and social security protection

Title 5: Compliance and Enforcement

Application of MLC:

MLC applies to all seafarers and this means any person who is employed or engaged or works in any capacity on board a ship to which the requirements of MLC apply.

A majority of MLC requirements place a responsibility on the shipowner and Article 2(1)(j) of the Convention contains the following definition:

“shipowner” means the owner of a ship or any other organisation or person such as the manager, agent or bareboat charterer, who has assumed the responsibility for the operation of the ship from the owner and who, on assuming such responsibility, has agreed to take over the duties and responsibilities imposed on shipowners in accordance with the Maritime Labour Convention, regardless of whether any other organisation or persons fulfil certain of the duties or responsibilities on behalf of the owner.

MLC applies to any ship whether publically or privately owned, ordinarily engaged in commercial activities, except for:

- (a) Ships engaged in fishing or similar pursuits;
- (b) Ships of traditional build such as dhows and junks;
- (c) Warships or naval auxiliaries; or
- (d) Ships which navigate exclusively in inland waters or waters within, or closely adjacent to, sheltered waters or areas where port regulations apply.

Isle of Man Implementation of MLC:

The Isle of Man government continues its commitment to provide a high quality, competitive international ship registry supporting best practice in the operation of registered vessels.

In preparation for ratification of the MLC, the Isle of Man Ship Registry is developing regulations which will provide for compliance by Isle of Man registered vessels to which MLC applies (MLC ships).

The intent of Isle of Man MLC regulations is to give effect to the Maritime Labour Convention 2006:

- without any expansion of scope;

and to the greatest extent possible

- without any requirements additional to those of the convention; and
- allowing for shipowners and seafarers to develop flexible approaches to compliance with required standards.

Accordingly, Isle of Man MLC regulations (and any related legislative amendments) will not affect requirements for ships to which MLC does not apply and these ships shall continue to be required to comply with existing regulations.

For ships to which MLC applies, existing regulations about similar matters will no longer apply.

Proposed Implementation of Title 4 – Health Protection, Medical Care, Welfare and Social Security Protection.

MLC title 4 consists of 5 regulations and associated standards and guidelines.

Regulation 4.1 - Medical care on board ship and ashore

Purpose: To protect the health of seafarers and ensure their prompt access to medical care on board ship and ashore.

Regulation 4.2 - Shipowners' liability

Purpose: To ensure that seafarers are protected from the financial consequences of sickness, injury or death occurring in connection with their employment.

Regulation 4.3 - Health and safety protection and accident prevention

Purpose: To ensure that seafarers' work environment on board ships promotes occupational safety and health.

MLC regulation 4.3.2 requires that each Member develops national guidelines for the management of occupational health and safety on board ships. The Isle of Man has taken this opportunity to update our current requirements and a considerable amount of work has gone into producing the guidance that will go with the regulations. We have included this guidance in full in this consultation paper.

Regulation 4.4 - Access to shore-based welfare facilities

Purpose: To ensure that seafarers working on board a ship have access to shore-based facilities and services to secure their health and well-being.

Regulation 4.5 - Social Security

Purpose: To ensure that measures are taken with a view to providing seafarers with access to social security protection.

It is proposed that Isle of Man MLC regulations will implement Title 4 regulations and standards as set out in the table below. For ease of reference the complete MLC text for Title 4 regulations and standards is included in the table.

If there is no response or clarification in the right hand column of the table then the Isle of Man regulations will implement MLC Title 4 as per the MLC text.

The Isle of Man Ship Registry has given appropriate consideration to all MLC guidelines for implementation of standards. Where the Isle of Man Ship Registry intends to follow the approach suggested by particular guidelines this will be noted in the following table, using the prefix B. Where particular guidelines are not referenced below, it can be assumed that the Isle of Man Ship Registry is not adopting the approach suggested by the guideline.

4.1 – Medical care on board ship and ashore

Ref	MLC text or title	Isle of Man proposal
R4.1.1	Each Member shall ensure that all seafarers on ships that fly its flag are covered by adequate measures for the protection of their health and that they have access to prompt and adequate medical care whilst working on board.	
R4.1.2	The protection and care under paragraph 1 of this Regulation shall, in principle, be provided at no cost to the seafarers.	
R4.1.3	Each Member shall ensure that seafarers on board ships in its territory who are in need of immediate medical care are given access to the Member's medical facilities on shore.	
R4.1.4	The requirements for on-board health protection and medical care set out in the Code include standards for measures aimed at providing seafarers with health protection and medical care as comparable as possible to that which is generally available to workers ashore.	
A4.1.1	Each Member shall ensure that measures providing for health protection and medical care, including essential dental care, for seafarers working on board a ship that flies its flag are adopted which;	
A4.1.1a	ensure the application to seafarers of any general provisions on occupational health protection and medical care relevant to their duties, as well as of special provisions specific to work on board ship;	
A4.1.1b	ensure that seafarers are given health protection and medical care as comparable as possible to that which is generally available to workers ashore, including prompt access to the necessary medicines, medical equipment and facilities for diagnosis and treatment and to medical information and expertise;	
A4.1.1c	give seafarers the right to visit a qualified medical doctor or dentist without delay in ports of call, where practicable;	"where practicable" relates to the availability of medical facilities and not the convenience of the ship.
A4.1.1d	ensure that, to the extent consistent with the Member's national law and practice, medical care and health protection services while a seafarer is on board ship or landed in a foreign port are provided free of charge to seafarers; and	
A4.1.1e	are not limited to treatment of sick or injured seafarers but include measures of a preventive character such as health promotion and health education	Shipowners will provide information on preventative measures to seafarers. The shipowner can refer to information regarding health promotion and education

	programmes.	activities which are available (usually free) through industry publications. For example see: www.seafarershealth.org www.dft.gov.uk/mca/min375a.pdf
A4.1.2	The competent authority shall adopt a standard medical report form for use by the ships' masters and relevant onshore and on-board medical personnel. The form, when completed and its contents shall be kept confidential and shall only be used to facilitate the treatment of seafarers.	The Ship Masters Report Form from the International Medical Guide for Ships will be adopted as the standard medical report form.(See Annex 5) However the Shipowner may use their own form if it contains the same information.
A4.1.3	Each Member shall adopt laws and regulations establishing requirements for on-board hospital and medical care facilities and equipment and training on ships that fly its flag.	The requirement for on-board hospital care facilities was included in the Consultation paper for MLC Title 3.
A4.1.4	National laws and regulations shall as a minimum provide for the following requirements:	
A4.1.4a	all ships shall carry a medicine chest, medical equipment and a medical guide, the specifics of which shall be prescribed and subject to regular inspection by the competent authority; the national requirements shall take into account the type of ship, the number of persons on board and the nature, destination and duration of voyages and relevant national and international recommended medical standards;	
A4.1.4b	ships carrying 100 or more persons and ordinarily engaged on international voyages of more than three days' duration shall carry a qualified medical doctor who is responsible for providing medical care; national laws or regulations shall also specify which other ships shall be required to carry a medical doctor, taking into account, inter alia, such factors as the duration, nature and conditions of the voyage and the number of seafarers on board;	The Isle of Man does not intend to specify any additional ship types or voyages.
A4.1.4c	ships which do not carry a medical doctor shall be required to have either at least one seafarer on board who is in charge of medical care and administering medicine as part of their regular duties or at least one seafarer on board competent to provide medical first aid; persons in charge of medical care on board who are not medical doctors shall have satisfactorily completed training in medical care that meets the requirements of the International Convention on Standards of Training,	

	Certification and Watchkeeping for Seafarers, 1978, as amended ("STCW"); seafarers designated to provide medical first aid shall have satisfactorily completed training in medical first aid that meets the requirements of STCW; national laws or regulations shall specify the level of approved training required taking into account, inter alia, such factors as the duration, nature and conditions of the voyage and the number of seafarers on board; and	
A4.1.4d	the competent authority shall ensure by a prearranged system that medical advice by radio or satellite communication to ships at sea, including specialist advice, is available 24 hours a day; medical advice, including the onward transmission of medical messages by radio or satellite communication between a ship and those ashore giving the advice, shall be available free of charge to all ships irrespective of the flag that they fly.	
B4.1.1.1	When determining the level of medical training to be provided on board ships that are not required to carry a medical doctor, the competent authority should require that:	
B4.1.1.1a	ships which ordinarily are capable of reaching qualified medical care and medical facilities within eight hours should have at least one designated seafarer with the approved medical first-aid training required by STCW which will enable such persons to take immediate, effective action in case of accidents or illnesses likely to occur on board a ship and to make use of medical advice by radio or satellite communication; and	
B4.1.1.1b	all other ships should have at least one designated seafarer with approved training in medical care required by STCW, including practical training and training in life-saving techniques such as intravenous therapy, which will enable the persons concerned to participate effectively in coordinated schemes for medical assistance to ships at sea, and to provide the sick or injured with a satisfactory standard of medical care during the period they are likely to remain on board.	
B4.1.1.4	The medicine chest and its contents, as well as the medical equipment and medical guide carried on board, should be properly maintained and inspected at regular intervals, not exceeding 12 months, by	

	<p>responsible persons designated by the competent authority, who should ensure that the labelling, expiry dates and conditions of storage of all medicines and directions for their use are checked and all equipment functioning as required.</p> <p>In adopting or reviewing the ship's medical guide used nationally, and in determining the contents of the medicine chest and medical equipment, the competent authority should take into account international recommendations in this field, including the latest edition of the International Medical Guide for Ships, and other guides mentioned in paragraph 2 of this Guideline.</p>	
B4.1.1.6	<p>All ships should carry a complete and up-to-date list of radio stations through which medical advice can be obtained; and, if equipped with a system of satellite communication, carry an up-to-date and complete list of coast earth stations through which medical advice can be obtained. Seafarers with responsibility for medical care or medical first aid on board should be instructed in the use of the ship's medical guide and the medical section of the most recent edition of the International Code of Signals so as to enable them to understand the type of information needed by the advising doctor as well as the advice received.</p>	

4.2 – Shipowners’ liability

Ref	MLC text or title	Isle of Man proposal
R4.2.1	To ensure that seafarers are protected from the financial consequences of sickness, injury or death occurring in connection with their employment	
R4.2.2	Each Member shall ensure that measures, in accordance with the Code, are in place on ships that fly its flag to provide seafarers employed on the ships with a right to material assistance and support from the shipowner with respect to the financial consequences of sickness, injury or death occurring while they are serving under a seafarers’ employment agreement or arising from their employment under such agreement.	
A4.2.1	Each Member shall adopt laws and regulations requiring that shipowners of ships that fly its flag are responsible for health protection and medical care of all seafarers working on board the ships in accordance with the following minimum standards:	
A4.2.1a	shipowners shall be liable to bear the costs for seafarers working on their ships in respect of sickness and injury of the seafarers occurring between the date of commencing duty and the date upon which they are deemed duly repatriated, or arising from their employment between those dates;	We want Shipowners to display on board a certificate showing the details of the persons or entity responsible for handling claims covered by these regulations.
A4.2.1b	shipowners shall provide financial security to assure compensation in the event of the death or long-term disability of seafarers due to an occupational injury, illness or hazard, as set out in national law, the seafarers’ employment agreement or collective agreement;	
A4.2.1c	shipowners shall be liable to defray the expense of medical care, including medical treatment and the supply of the necessary medicines and therapeutic appliances, and board and lodging away from home until the sick or injured seafarer has recovered, or until the sickness or incapacity has been declared of a permanent character;	
A4.2.1d	shipowners shall be liable to pay the cost of burial expenses in the case of death occurring on board or ashore during the period of engagement.	
A4.2.2	National laws or regulations may limit the liability of the shipowner to defray the expense of medical care and board and	To limit the liability to a period which shall not be less than 16 weeks.

	lodging to a period which shall not be less than 16 weeks from the day of the injury or the commencement of the sickness.	
A4.2.3	Where the sickness or injury results in incapacity for work the shipowner shall be liable:	
A4.2.3a	to pay full wages as long as the sick or injured seafarers remain on board or until the seafarers have been repatriated in accordance with this Convention; and	
A4.2.3b	to pay wages in whole or in part as prescribed by national laws or regulations or as provided for in collective agreements from the time when the seafarers are repatriated or landed until their recovery or, if earlier, until they are entitled to cash benefits under the legislation of the Member concerned.	
A4.2.4	National laws or regulations may limit the liability of the shipowner to pay wages in whole or in part in respect of a seafarer no longer on board to a period which shall not be less than 16 weeks from the day of the injury or the commencement of the sickness.	To limit the liability to a period which shall not be less than 16 weeks
A4.2.5	National laws or regulations may exclude the shipowner from liability in respect of:	
A4.2.5a	injury incurred otherwise than in the service of the ship;	
A4.2.5b	injury or sickness due to the wilful misconduct of the sick, injured or deceased seafarer; and	
A4.2.5c	sickness or infirmity intentionally concealed when the engagement is entered into.	
A4.2.7	Shipowners or their representatives shall take measures for safeguarding property left on board by sick, injured or deceased seafarers and for returning it to them or to their next of kin.	
B4.2.1	The payment of full wages required by Standard A4.2, paragraph 3(a), may be exclusive of bonuses.	
B4.2.2	National laws or regulations may provide that a shipowner shall cease to be liable to bear the costs of a sick or injured seafarer from the time at which that seafarer can claim medical benefits under a scheme of compulsory sickness insurance, compulsory accident insurance or workers' compensation for accidents.	

4.3 – Health and safety protection and accident prevention

Ref	MLC text or title	Isle of Man proposal
R4.3.1	Each Member shall ensure that seafarers on ships that fly its flag are provided with occupational health protection and live, work and train on board ship in a safe and hygienic environment.	
R4.3.2	Each Member shall develop and promulgate national guidelines for the management of occupational safety and health on board ships that fly its flag, after consultation with representative shipowners' and seafarers' organizations and taking into account applicable codes, guidelines and standards recommended by international organizations, national administrations and maritime industry organizations.	
R4.3.3	Each Member shall adopt laws and regulations and other measures addressing the matters specified in the Code, taking into account relevant international instruments, and set standards for occupational safety and health protection and accident prevention on ships that fly its flag.	
A4.3.1	The laws and regulations and other measures to be adopted in accordance with Regulation 4.3, paragraph 3, shall include the following subjects:	
A4.3.1a	the adoption and effective implementation and promotion of occupational safety and health policies and programmes on ships that fly the Member's flag, including risk evaluation as well as training and instruction of seafarers;	Occupational safety and health policies and programmes are stated in Annex 1 and in particular – Annex 1 Section 4 Health and Safety Training Annex 1 Section 5 Risk Assessment
A4.3.1b	reasonable precautions to prevent occupational accidents, injuries and diseases on board ship, including measures to reduce and prevent the risk of exposure to harmful levels of ambient factors and chemicals as well as the risk of injury or disease that may arise from the use of equipment and machinery on board ships.	Refer to Annex 1 Section 1 General Duties of a Shipowner. Guidance for compliance on Ambient Factors and Chemicals are explained in Annex 2. Measures to prevent the risk of injury or disease that may arise from the use of equipment on board ships are stated in Annex 3.
A4.3.1c	on-board programmes for the prevention of occupational accidents, injuries and diseases and for continuous improvement in occupational safety and health protection, involving seafarers' representatives and all other persons concerned in their	The on-board programmes for the prevention of occupational accidents, injuries and diseases are the requirements of Safety Officials and Safety Committees and are stated in Annex 1 Section 2.

	implementation, taking account of preventive measures, including engineering and design control, substitution of processes and procedures for collective and individual tasks, and the use of personal protective equipment; and	
A4.3.1d	requirements for inspecting, reporting and correcting unsafe conditions and for investigating and reporting on-board occupational accidents.	Requirements of the safety officer, safety representative and safety committee are stated in Annex 1 Section 2.
A4.3.2	The provisions referred to in paragraph 1 of this Standard shall:	
A4.3.2a	take account of relevant international instruments dealing with occupational safety and health protection in general and with specific risks, and address all matters relevant to the prevention of occupational accidents, injuries and diseases that may be applicable to the work of seafarers and particularly those which are specific to maritime employment;	
A4.3.2b	clearly specify the obligation of shipowners, seafarers and others concerned to comply with the applicable standards and with the ship's occupational safety and health policy and programme with special attention being paid to the safety and health of seafarers under the age of 18;	Annex 1 Section 7 states the health and safety requirements required for Young Persons.
A4.3.2c	specify the duties of the master or a person designated by the master, or both, to take specific responsibility for the implementation of and compliance with the ship's occupational safety and health policy and programme; and	Safety Officers are required on all ships. The duties of the Safety Officer are stated in Annex 1 Section 2.
A4.3.2d	specify the authority of the ship's seafarers appointed or elected as safety representatives to participate in meetings of the ship's safety committee. Such a committee shall be established on board a ship on which there are five or more seafarers.	The duties of the safety committee and safety representative are stated in Annex 1 Section 2.
A4.3.3	The laws and regulations and other measures referred to in Regulation 4.3, paragraph 3, shall be regularly reviewed in consultation with the representatives of the shipowners' and seafarers' organizations and, if necessary, revised to take account of changes in technology and research in order to facilitate continuous improvement in occupational safety and health policies and programmes and to provide a safe occupational environment for seafarers on ships that fly the Member's flag.	The proposed regulations are explained in the attached Annexes which will be compiled into the Ship Registries Occupational Health and Safety Guidance. These guidelines will be subject to a regular review in accordance with this standard.
A4.3.4	Compliance with the requirements of applicable international instruments on the	

	acceptable levels of exposure to workplace hazards on board ships and on the development and implementation of ships' occupational safety and health policies and programmes shall be considered as meeting the requirements of this Convention.	
A4.3.5	The competent authority shall ensure that:	
A4.3.5a	occupational accidents, injuries and diseases are adequately reported, taking into account the guidance provided by the International Labour Organization with respect to the reporting and recording of occupational accidents and diseases;	Further explanation is available in Annex 4
A4.3.5b	comprehensive statistics of such accidents and diseases are kept, analysed and published and, where appropriate, followed up by research into general trends and into the hazards identified; and	
A4.3.5c	occupational accidents are investigated.	The safety officer is required to investigate all occupational accidents. The Master and Shipowner are also required to ensure that the circumstances of every casualty, accident, and incident are examined, as far as practical. Further explanation is available in Annex 1 Section 2 and Annex 4.
A4.3.6	Reporting and investigation of occupational safety and health matters shall be designed to ensure the protection of seafarers' personal data, and shall take account of the guidance provided by the International Labour Organization on this matter.	
A4.3.7	The competent authority shall cooperate with shipowners' and seafarers' organizations to take measures to bring to the attention of all seafarers information concerning particular hazards on board ships, for instance, by posting official notices containing relevant instructions.	
A4.3.8	The competent authority shall require that shipowners conducting risk evaluation in relation to management of occupational safety and health refer to appropriate statistical information from their ships and from general statistics provided by the competent authority.	This has been included in Annex 1 Section 5 Risk Assessment.
B4.3.1.1	The provisions required under Standard A4.3 should take into account the ILO code of practice entitled Accident prevention on board ship at sea and in port, 1996, and subsequent versions and other related ILO and other international standards and guidelines and codes of practice regarding	Account of ILO code of practice 'Accident prevention on board ship at sea and in port 1996' has been taken into account, as well as the MCA's 'Code of Safe Working Practices for Merchant Seamen'.

	occupational safety and health protection, including any exposure levels that they may identify.	
B4.3.1.2	<p>The competent authority should ensure that the national guidelines for the management of occupational safety and health address the following matters, in particular:</p> <ul style="list-style-type: none"> a) general and basic provisions; b) structural features of the ship, including means of access and asbestos-related risks; c) machinery; d) the effects of the extremely low or high temperature of any surfaces with which seafarers may be in contact; e) the effects of noise in the workplace and in shipboard accommodation: f) the effects of vibration in the workplace and in shipboard accommodation g) the effects of ambient factors, other than those referred to in subparagraphs (e) and (f), in the workplace and in shipboard accommodation, including tobacco smoke h) special safety measures on and below deck i) loading and unloading equipment j) fire prevention and fire fighting k) anchors, chains and lines l) dangerous cargo and ballast m) personal protective equipment for seafarers n) work in enclosed spaces o) physical and mental effects of fatigue p) the effects of drug and alcohol dependency) q) HIV/AIDS protection and prevention; and r) emergency and accident response 	All of the attached Annexes will be compiled to form the 'Isle of Man Ship Registry Occupational Health and Safety Guidance.'
B4.3.1.3	<p>The assessment of risks and reduction of exposure on the matters referred to in paragraph 2 of this Guideline should take account of the physical occupational health effects, including, manual handling of loads, noise and vibration, the chemical and biological occupational health effects, the mental occupational health effects, the physical and mental health effects of fatigue, and occupational accidents. The necessary measures should take due account of the preventive principle according to which, among other things, combating risk at the source, adapting work to the individual, especially as regards the design of workplaces, and replacing the dangerous by the non dangerous or the less dangerous, have precedence over personal protective equipment for seafarers.</p>	<p>Requirements for risk assessment are stated in Annex 1 Section 5.</p> <p>Additional requirements for risk assessment are stated in Annex 2 for noise, vibration and chemicals, and Annex 1 Chapter 7 for young persons.</p>

B4.3.2	<p>The competent authority, in conjunction with the competent international bodies and with representatives of shipowners' and seafarers' organizations concerned of improving the protection of seafarers, in so far as practicable, from the adverse effects of exposure to noise.</p> <p>The review referred to in paragraph 1 of this Guideline should take account of the adverse effects of exposure to excessive noise on the hearing, health and comfort of seafarers and the measures to be prescribed or recommended to reduce shipboard noise to protect seafarers. The measures to be considered should include the following:</p> <p>(a) instruction of seafarers in the dangers to hearing and health of prolonged exposure to high noise levels and in the proper use of noise protection devices and equipment;</p> <p>(b) provision of approved hearing protection equipment to seafarers where necessary;</p> <p>And</p> <p>(c) assessment of risk and reduction of exposure levels to noise in all accommodation and recreational and catering facilities, as well as engine rooms and other machinery spaces.</p>	Annex 2 Section 1 Exposure to Noise has taken into account the latest European Union standards on Exposure to Noise and the ILO publication Ambient Factors in the Workplace, 2001.
B4.3.3	<p>The competent authority, in conjunction with the competent international bodies and with representatives of shipowners' and seafarers' organizations concerned, and taking into account, as appropriate, relevant international standards, should review on an ongoing basis the problem of vibration on board ships with the objective of improving the protection of seafarers, in so far as practicable, from the adverse effects of vibration.</p> <p>The review referred to in paragraph 1 of this Guideline should cover the effect of exposure to excessive vibration on the health and comfort of seafarers and the measures to be prescribed or recommended to reduce shipboard vibration to protect seafarers. The measures to be considered should include the following:</p> <p>(a) instruction of seafarers in the dangers to their health of prolonged exposure to vibration;</p> <p>(b) provision of approved personal protective equipment to seafarers where necessary; And</p> <p>(c) assessment of risks and reduction of exposure to vibration in all accommodation and recreational and catering facilities by adopting measures in accordance with the</p>	Annex 2 Section 2 Exposure to Vibration has taken into account the latest European Union standards on Exposure to Vibration and the ILO publication Ambient Factors in the Workplace 2001.

	guidance provided by the ILO code of practice entitled Ambient factors in the workplace, 2001, and any subsequent revisions, taking account of the difference between exposure in those areas and in the workplace.	
B4.3.4	<p>1. Any obligation on the shipowner to provide protective equipment or other accident prevention safeguards should, in general, be accompanied by provisions requiring their use by seafarers and by a requirement for seafarers to comply with the relevant accident prevention and health protection measures.</p> <p>2. Account should also be taken of Articles 7 and 11 of the Guarding of Machinery Convention, 1963 (No. 119), and the corresponding provisions of the Guarding of Machinery Recommendation, 1963 (No. 118), under which the obligation to ensure compliance with the requirement that machinery in use is properly guarded, and its use without appropriate guards prevented, rests on the employer, while there is an obligation on the worker not to use machinery without the guards being in position nor to make inoperative the guards provided.</p>	<p>The Shipowner is required to provide Personal Protective Equipment to seafarers (Annex 1 Section 3).</p> <p>All dangerous parts of work equipment are required to have guards or protection devices (Annex 3 Chapter 4).</p> <p>Seafarers and employees are required to comply with relevant accident prevention and health protection measures (Annex 1 Section 1.4).</p> <p>It is an offence for any person to intentionally or recklessly interfere with or misuse anything provided in the interests of health and safety (Annex 1 Section 1.5).</p>
B4.3.5	<p>1. All occupational accidents and occupational injuries and diseases should be reported so that they can be investigated and comprehensive statistics can be kept, analysed and published, taking account of protection of the personal data of the seafarers concerned. Reports should not be limited to fatalities or to accidents involving the ship. The guidelines are in Protection of workers' personal data, 1997</p> <p>2. The statistics referred to in paragraph 1 of this Guideline should record the numbers, nature, causes and effects of occupational accidents and occupational injuries and diseases, with a clear indication, as applicable, of the department on board a ship, the type of accident and whether at sea or in port.</p> <p>3. Each Member should have due regard to any international system or model for recording accidents to seafarers which may have been established by the ILO.</p>	
B4.3.6	<p>1. The competent authority should undertake investigations into the causes and circumstances of all occupational accidents and occupational injuries and diseases resulting in loss of life or serious personal injury, and such other cases as may be</p>	

	<p>specified in national laws or regulations.</p> <p>2. Consideration should be given to including the following as subjects of investigation:</p> <p>(a) working environment, such as working surfaces, layout of machinery, means of access, lighting and methods of work;</p> <p>(b) incidence in different age groups of occupational accidents and occupational injuries and diseases;</p> <p>(c) special physiological or psychological problems created by the shipboard environment;</p> <p>(d) problems arising from physical stress on board a ship, in particular as a consequence of increased workload;</p> <p>(e) problems arising from and effects of technical developments and their influence on the composition of crews; and</p> <p>(f) problems arising from any human failures.</p>	
B4.3.10	<p>1. Safety and health regulations should refer to any general provisions on medical examinations before and during employment and on the prevention of accidents and the protection of health in employment, which may be applicable to the work of seafarers. Such regulations should specify measures which will minimize occupational dangers to young seafarers in the course of their duties.</p>	
	<p>2. Except where a young seafarer is recognized as fully qualified in a pertinent skill by the competent authority, the regulations should specify restrictions on young seafarers undertaking, without appropriate supervision and instruction, certain types of work presenting special risk of accident or of detrimental effect on their health or physical development, or requiring a particular degree of maturity, experience or skill.</p> <p>In determining the types of work to be restricted by the regulations, the competent authority might consider in particular work involving:</p> <p>(a) the lifting, moving or carrying of heavy loads or objects;</p> <p>(b) entry into boilers, tanks and cofferdams;</p> <p>(c) exposure to harmful noise and vibration levels;</p> <p>(d) operating hoisting and other power machinery and tools, or acting as signallers to operators of such equipment;</p> <p>(e) handling mooring or tow lines or anchoring equipment;</p> <p>(f) rigging;</p> <p>(g) work aloft or on deck in heavy weather;</p>	<p>The Schedule of Annex 1 includes the list of tasks that a young seafarer shall not undertake except where this requirement is being met.</p>

	<p>(h) nightwatch duties; (i) servicing of electrical equipment; (j) exposure to potentially harmful materials, or harmful physical agents such as dangerous or toxic substances and ionizing radiations; (k) the cleaning of catering machinery; and (l) the handling or taking charge of ships' boats.</p>	
	<p>3. Practical measures should be taken by the competent authority or through the appropriate machinery to bring to the attention of young seafarers information concerning the prevention of accidents and the protection of their health on board ships. Such measures could include adequate instruction in courses, official accident prevention publicity intended for young persons and professional instruction and supervision of young seafarers.</p>	<p>The Ship Registry will produce a Merchant Shipping Notice on requirements for young persons.</p>
	<p>4. Education and training of young seafarers both ashore and on board ships should include guidance on the detrimental effects on their health and well-being of the abuse of alcohol and drugs and other potentially harmful substances, and the risk and concerns relating to HIV/AIDS and of other health risk related activities.</p>	<p>The shipowner shall be responsible for ensuring this.</p>

4.4 – Access to shore-based welfare facilities

Ref	MLC Text or title	Isle of Man proposal
R4.4.1	Each Member shall ensure that shore-based welfare facilities, where they exist, are easily accessible. The Member shall also promote the development of welfare facilities, such as those listed in the Code, in designated ports to provide seafarers on ships that are in its ports with access to adequate welfare facilities and services.	No specific seafarers facilities exist in the Islands ports although there are a few local branches of U.K. based voluntary charitable organisations concerned with seafarers welfare that can be contacted, (i.e. Manx Marine Society, King George V, Naval Association, etc...). However seafarers visiting the Isle of Man have access, if desired, to all public recreational facilities, places of worship, voluntary organizations and shops.
R4.4.2	The responsibilities of each Member with respect to shore-based facilities, such as welfare, cultural, recreational and information facilities and services, are set out in the Code.	
A4.4.1	Each Member shall require, where welfare facilities exist on its territory, that they are available for the use of all seafarers, irrespective of nationality, race, colour, sex, religion, political opinion or social origin and irrespective of the flag State of the ship on which they are employed or engaged or work.	
A4.4.2	Each Member shall promote the development of welfare facilities in appropriate ports of the country and determine, after consultation with the shipowners' and seafarers' organizations concerned, which ports are to be regarded as appropriate.	
A4.4.3	Each Member shall encourage the establishment of welfare boards which shall regularly review welfare facilities and services to ensure that they are appropriate in the light of changes in the needs of seafarers resulting from technical, operational and other developments in the shipping industry.	

4.5 – Social security

Ref	MLC text or title	Isle of Man proposal
R.4.5.1	Each Member shall ensure that all seafarers and, to the extent provided for in its national law, their dependants have access to social security protection in accordance with the Code without prejudice however to any more favourable conditions referred to in paragraph 8 of article 19 of the Constitution.	
R.4.5.2	Each Member undertakes to take steps, according to its national circumstances, individually and through international cooperation, to achieve progressively comprehensive social security protection for seafarers.	
R.4.5.3	Each Member shall ensure that seafarers who are subject to its social security legislation, and, to the extent provided for in its national law, their dependants, are entitled to benefit from social security protection no less favourable than that enjoyed by shoreworkers	
A.4.5.1	The branches to be considered with a view to achieving progressively comprehensive social security protection under Regulation 4.5 are: medical care, sickness benefit, unemployment benefit, old-age benefit, employment injury benefit, family benefit, maternity benefit, invalidity benefit and survivors' benefit, complementing the protection provided for under Regulations 4.1, on medical care, and 4.2, on shipowners' liability, and under other titles of this Convention.	
A.4.5.2	At the time of ratification, the protection to be provided by each Member in accordance with Regulation 4.5, paragraph 1, shall include at least three of the nine branches listed in paragraph 1 of this Standard.	The IOM provides the social security protection of all 9 in current legislation and this also extends to resident seafarers.
A.4.5.3	Each Member shall take steps according to its national circumstances to provide the complementary social security protection referred to in paragraph 1 of this Standard to all seafarers ordinarily resident in its territory. This responsibility could be satisfied, for example, through appropriate bilateral or multilateral agreements or contribution-based systems. The resulting protection shall be no less favourable than that enjoyed by shoreworkers resident in their territory.	
A.4.5.4	Notwithstanding the attribution of responsibilities in paragraph 3 of this Standard, Members may determine, through bilateral and multilateral agreements and through provisions adopted in the	

	framework of regional economic integration organizations, other rules concerning the social security legislation to which seafarers are subject.	
A.4.5.5	Each Member's responsibilities with respect to seafarers on ships that fly its flag shall include those provided for by Regulations 4.1 and 4.2 and the related provisions of the Code, as well as those that are inherent in its general obligations under international law.	
A.4.5.6	Each Member shall give consideration to the various ways in which comparable benefits will, in accordance with national law and practice, be provided to seafarers in the absence of adequate coverage in the branches referred to in paragraph 1 of this Standard.	
A.4.5.7	The protection under Regulation 4.5, paragraph 1, may, as appropriate, be contained in laws or regulations, in private schemes or in collective bargaining agreements or in a combination of these.	
A.4.5.8	To the extent consistent with their national law and practice, Members shall cooperate, through bilateral or multilateral agreements or other arrangements, to ensure the maintenance of social security rights, provided through contributory or non-contributory schemes, which have been acquired, or are in the course of acquisition, by all seafarers regardless of residence.	
A.4.5.9	Each Member shall establish fair and effective procedures for the settlement of disputes.	
A.4.5.10	Each Member shall at the time of ratification specify the branches for which protection is provided in accordance with paragraph 2 of this Standard. It shall subsequently notify the Director-General of the International Labour Office when it provides social security protection in respect of one or more other branches stated in paragraph 1 of this Standard. The Director-General shall maintain a register of this information and shall make it available to all interested parties.	

Questions for feedback

Q1. Can you foresee any problems complying with these provisions and if so are you able to prescribe a suitable alternative?

ANNEX 1

Health and Safety Policies and Programmes

SECTION 1 General Duties

1.1 General Duties of the Shipowner

The shipowner has a duty to ensure as far as is reasonably practicable, the health and safety of seafarers employed on board the ship.

In carrying out this duty the shipowner shall ensure there are reasonable precautions to prevent occupational accidents, injuries and diseases on board ship. This includes measures to reduce and prevent the risk of exposure to harmful levels of ambient factors (including noise and vibration) and chemicals as well as the risk of injury or diseases that may arise from the use of equipment and machinery on board the ship.

Annex 2 gives guidance on measures to reduce and prevent the risk of seafarers being exposed to noise, vibration and chemicals.

The general health and safety measures that are required to be taken include the provision of -

1. A general health and safety policy which shall be maintained and revised as appropriate and shall be available to all seafarers;
2. Appropriate and relevant information and instruction, training, and supervision as necessary for seafarers (Annex 1 Section 4);
3. The avoidance of risks and the evaluation and action to minimise unavoidable risks (Annex 1 Section 5);
4. Health surveillance as may be appropriate having regard to any risks identified in the risk assessment (Annex 1 Section 6);
5. Ensuring that seafarers do not have access to any area of the ship to which it may be necessary to restrict access to, on grounds of health or safety. This is unless the seafarer has received adequate training or instruction appropriate to the entry into that area;
6. The maintenance of all places of work in the ship in a condition that is safe and without risk to health, and to ensure an environment for persons on board the ship that is safe and without risk to health;
7. Collaboration with others who employ persons on board the ship at any time engaged in loading or unloading activities to protect the health and safety of all persons on board the ship.

1.2 Shipowners duty to consult with other employers

On vessels where there are seafarers and other persons employed on the vessel who are not employed by the shipowner (for example riding squads, dive technicians, cable maintenance engineers etc), the shipowner has to -

- Consult with any other employer or self employed persons regarding the requirements in 'General Duties of the Shipowner' (above);
- Co-ordinate arrangements for the protection of all persons employed on board the ship, and the prevention of risk to their health and safety; and,
- Ensure that all persons employed on board the ship are informed so far as is practicable, of the risks to health arising on board ship and of any co-ordination arrangements.

1.3 Employers

The duty of employers and self employed persons is to inform the shipowner of any risks to health and safety arising from any tasks that they are carrying out on board the vessel.

For example a cable laying team on an offshore vessel intend to carry out hotwork on the aft deck. In order for this task to be carried out safely the employer has a written procedure requiring the team supervisor to co-ordinate a permit to work with the vessels chief officer. This ensures all departments on the vessel are aware that hotwork is being carried out.

1.4 Seafarers and employees

It is the duty of all persons employed on board the ship to;

- Take care of their own health and safety and that of others on board who may be affected by their acts or omissions;
- Co-operate with the shipowner in carrying out health and safety duties;
- Inform the master or the safety officer of any matter, or work situation which has come to their attention which they consider to be a risk to health and safety;
- Make proper use of any personal protective equipment provided for their use;
- Not use any machinery, equipment, dangerous substance, safety device or other equipment provided in the ship except in accordance with the instructions provided for its use and following the training and instruction provided by the shipowner, or employer.

1.5 Prohibitions

Shipowner or employer

The shipowner or employer shall not charge any seafarer or employee in respect of anything done or provided in pursuance of any requirement of the health and safety regulations.

All persons

It is an offence for any person to intentionally or recklessly interfere with or misuse anything provided in the interests of health and safety.

SECTION 2

Safety Officials and Safety Committee

2.1 Safety Officer

Safety officers are required on all vessels.

The safety officer is a person designated to take specific responsibility for the implementation of and compliance with the ship's occupational health policy and programme. The safety officer may be the master however it is recommended that where possible this task is designated to another seafarer as the master already has duties under the health and safety regulations. If it has been decided that the master is the safety officer the various requirements in the regulations for the safety officer to report or make recommendations to the master still need to be recorded.

There is no requirement for safety officers to be given any formal training, but safety officers have to be aware of their responsibilities and be effective in carrying them out. To ensure this requirement is being fulfilled it is recommended that the safety officer attends either a shipboard training scheme or a shore based course to give the safety officer an understanding into their duties. Shipboard training schemes could comprise of computer based training, understudying the existing safety officer, or through being given information and instruction.

The safety officer has to use their best endeavours to ensure that the provisions of the Ship Registry's health and safety guidelines and the shipowners occupational health and safety policies and programmes are implemented and being complied with. Therefore the safety officer will require a certain amount of experience in working on board ships. For this reason it is a requirement that the safety officer has-

- at least 2 years sea service since attaining the age of 18; and
- if serving on tankers, the 2 years sea service shall include at least 6 months sea service on tankers.

2.2 Safety Officers Duties

The safety officer has the following duties, which are all required by the health and safety regulations -

Carrying out investigations

The safety officer has a duty to carry out the following types of investigations-

- a. Investigating every *accident* or *incident* that occurs on board the vessel (refer to Annex 4 for the definitions for *accident* or *incident*).

These should be thoroughly investigated by the safety officer in order to determine the root cause of the accident or incident. Following the investigation a report has to be produced and records maintained which contain the following -

- All statements made by any witnesses to the accident/incident;
- Recommendations to prevent further similar accidents or incidents;
- Details of other investigations, complaints and inspections;
- Any representations and recommendations made, whether this is to the master, or through the master to the shipowner.

If requested these records will have to be made available to the master, the safety committee and the safety representative.

All accidents and incidents also have to be reported to the Ship Registry using the ARF/1 Form. (More details can be found in Annex 4) The safety officer in conjunction with the vessels master should ensure this is carried out. On receipt of the ARF/1 form the Ship Registry may request further records regarding the accident/incident from the safety officer.

It is not a legal requirement for the safety officer to investigate casualties, or any accident or incident which resulted from a casualty to the ship. The duty to investigate casualties falls on the shipowner, although the safety officer may be required to assist with the investigation.

b. Investigating all complaints by seafarers about occupational health and safety

Seafarers on the vessel should address any complaints regarding health and safety directly to the safety officer. The safety officer is then required to investigate the complaint. If however the safety officer considers the complaint to be frivolous or vexatious then the safety officer is not required to carry out an investigation.

c. Investigating any potential hazard to occupational health and safety.

Potential hazards have to be investigated by the safety officer. These may have been brought to the safety officer's attention by near miss reporting, during health and safety inspections, or following a safety alert issued by the shipowner.

d. Investigations when requested to by the safety committee.

Following this investigation the safety officer will have to report the findings of the investigation back to the safety committee.

Carrying out an occupational health and safety inspection

Occupational health and safety inspections have to be carried out at a minimum of once every 3 months and cover all accessible parts of the ship. For larger vessels it is recommended that different parts of the vessel are inspected separately, either on a weekly or monthly basis. If there have been substantial changes in the conditions of work on board, for example with the vessel going into dry dock more frequent inspections should be carried out.

Reports of the inspections should be maintained on the vessel and include any deficiencies which are still outstanding.

Ensuring deficiencies are reported

The safety officer has to ensure that any deficiency to the ship is reported to the master, and if appropriate the safety officer shall make recommendations on how the deficiency can be closed out. The shipowner shall also be advised through the master of the deficiency. This can include, deficiencies regarding the vessels occupational health and safety policy and programmes, or any health and safety requirement of the Ship Registry. This may be a legal requirement, or a requirement from an Isle of Man Shipping Notice, or contained in the Health and Safety Guidelines.

For example the safety officer may discover as part of a health and safety inspection that the crane has not been load tested at the required 5 yearly interval. Because this is not a task the safety officer can do personally the master will have to be informed. This is so arrangements can be made for the test to be carried out and the master will also have to inform the shipowner so the shipowner is aware the test is outstanding.

Improving the standard of safety consciousness among seafarers

The safety officer has to take a proactive role in safety awareness. This can be achieved by -

- Ensuring (as far as possible) that safety instructions and guidance are complied with. For example safety instructions for machinery, life saving equipment or fire fighting equipment.
- Stopping any work that may cause an accident.
- Ensuring that familiarisation training is carried out to all seafarers joining the vessel.
- Ensuring that the minutes of each safety committee meeting are accessible to all seafarers on the vessel.

2.3 Safety Representative(s)

In every ship in which there are **five or more seafarers** employed the shipowner shall make rules for the election of safety representatives and the seafarers on the vessel shall elect a safety representative.

For vessels with 16 or more seafarers each department shall elect a safety representative.

A safety representative shall only be elected if they have -

- at least 2 years sea service since attaining the age of 18; and
- if serving on tankers, the 2 years sea service shall include at least 6 months sea service on tankers.

The safety representative may carry out the following tasks -

- If agreed with the safety officer participate in any of the investigations or inspections carried out by the safety officer or,
- If required by the master, undertake similar investigations or inspections regardless of whether this has already been carried out by the safety officer.
- On behalf of the seafarers and on matters affecting the occupational health and safety of the seafarers that the safety representative represents –
 - a. Consult with the master and safety officer and make recommendations to them. This shall include recommendations on any work which the safety representative believes may cause an accident and therefore should be suspended;
 - b. Request through the safety committee an investigation by the safety officer of any health and safety matters.
- Inspect any of the records required to be kept by the safety officer; and,
- Attach any comments to any accident report submitted to the Ship Registry which the safety representative wishes to make.

The appointment of the safety representative shall end either when they cease to be employed on the ship, or when they resign from that position, or when another duly elected person takes their place.

2.4 Safety Committee Meetings (A4.3.2d)

A safety committee is required on any ship in which there are **five or more seafarers** employed.

The master shall appoint the committee which shall -

- Have the master as chairman;
- Include the safety officer and safety representative(s);
- Be held at intervals of not more than 6 weeks;
- Once appointed it shall be recorded in the official log book.

The duty of the safety committee is the same as the safety officer in that;

The safety committee shall use their best endeavours to ensure that the provisions of the Ship Registry's health and safety guidelines and the shipowners occupational health and safety policies and programmes are implemented and complied with and to improve the standard of safety consciousness among seafarers on the vessel.

In carrying out this task the following shall be taken into account-

- a. Preventive measures, which includes engineering and design control.

For example; the safety hazards involved in installing a new crane on a small vessel is discussed during a safety committee meeting. During the discussion it is agreed that prior to the crane being installed a check of the vessels stability will be carried out by a Naval Architect to ensure the vessel is capable of operating safely with the crane fitted.

b. Substitution of processes and procedures for collective and individual tasks

For example; the safety officer states that the existing pneumatic chipping hammers are an old design and exceed the maximum vibration levels stated in the Ship Registry's Health and Safety Guidelines. The decision of the safety committee is to replace the chipping hammers with a modern design with a lower vibration exposure limit.

c. The use of personal protective equipment.

For example; a new type of safety harness is delivered to the vessel and the safety committee arranges for training to be given to seafarers in how to safely use the new equipment.

2.5 Additional duties of the safety committee

Safety committees are also required to -

- Make representations and recommendations on behalf of the seafarers to the shipowner on matters affecting the occupational health and safety of seafarers;
- Inspect any of the records required to be kept by the safety officer;
- Ensure the vessels occupational health and safety policies and programmes are observed, and make recommendations for their improvement;
- Consider and take any appropriate action in respect of any occupational health and safety matters affecting the ship and its seafarers;
- Keep a record of the minutes of the meeting which should include; any conclusions made, any representations made to the master or the safety committee, any replies made, and any actions that follow; and
- Ensure that any conclusions reached on matters of safety are followed up.

In performing any of the duties set out above, the safety committee may require the safety officer to carry out any occupational safety inspection it considers necessary. The safety officer will then be required to report the findings to the safety committee.

2.6 Duties of the shipowner and the master

Both the shipowner and the master are required to assist the progress of the safety officer, safety representative and safety committee in carrying out their duties. This shall include-

- Providing access to any necessary information including relevant legislation or shipping notices;
- Passing on information on any hazards on board the ship;
- When the vessel is carrying hazardous cargoes, it shall be ensured that information concerning the hazards, their location and any necessary safety precautions is readily available. The information should also be prominently displayed in appropriate locations;
- Provide any reasonably necessary accommodation, office equipment and similar materials (where practical);
- Allow the safety officer and safety representatives such absence from ship duties without loss of pay as may be necessary to enable them to fulfil their functions. This also includes undertaking any necessary training on board in the exercise of their duties;
- Receive representations about health and safety from the safety officer, safety representatives or the safety committee. This includes any recommendations made by a safety representative that certain work should be suspended. This should be discussed and any agreed measures should be implemented as soon as may be reasonable and practicable;
- If a refusal is given to implement any suggested health and safety measures, this should be specified in writing;
- Any request for relevant information about accidents and incidents that the safety officer is required to investigate shall be provided;
- Arrange the election of a safety representative within three days of being requested to do so by any two persons entitled to vote in such an election, and give publicity to such election.

The shipowner and master do not have to make available any information the disclosure of which would in their view be unnecessary or contrary to the shipowner's commercial interests and which has no bearing on issues of health and safety.

SECTION 3

Personal Protective Equipment (PPE)

3.1 General requirements for PPE

Personal protective equipment includes, but is not restricted to, items such as safety helmets, gloves, eye protection, respirators, high-visibility clothing, safety footwear and safety harnesses.

If the risks cannot be avoided or adequately controlled in other ways PPE must be supplied free of charge to seafarers, or other persons working on the vessel.

To ensure that the correct type of PPE is chosen it shall be -

- Appropriate to the tasks being performed and for the risks to which the person is exposed;
- A suitable size for the person who is to use it;
- Manufactured to an appropriate international standard, for example it could be 'CE' marked which signifies that the PPE satisfies certain basic safety requirements and in some cases will have been tested and certified by an independent body;
- Practical and effective, taking into account any constraints imposed by the place of work; and
- Compatible with any other equipment which the seafarer has to use at the same time.

PPE carried on board ships for the use of more than one person shall be -

- Kept in an easily accessible and clearly marked place; and
- Kept in a hygienic condition and inspected repaired and maintained as necessary.

In all cases PPE shall adequately control the risks involved without increasing the overall level of risk.

3.2 Maintenance

It shall be ensured that PPE is -

- Properly stored and maintained in accordance with the manufacturer's instructions which shall include recommended replacement periods and shelf life. Its operation shall be checked at the intervals recommended by the manufacture.
- In the case of respiratory protection equipment designed to protect against hazards including dust, toxic materials and atmospheres, and lack of oxygen. The equipment shall be inspected and its operation confirmed both before and after use.

3.3 Instructions and training in the use of PPE

The shipowner shall provide instructions and appropriate training in the use of PPE so seafarers know how to use it properly. This is so anyone using PPE is aware of why it is needed, when it should be used, repaired or replaced and its limitations. All reasonable steps shall be taken by the shipowner to ensure that protective equipment that has been provided to seafarers is used correctly.

There is also an obligation on seafarers who have been provided with PPE to use it in accordance with any training, instruction, or operating instructions which they have been provided with.

SECTION 4

Health and Safety Training

4.1 General requirements for Health and Safety Training

The shipowner shall, in entrusting tasks to seafarers, take into account their capabilities regarding health and safety. This is to ensure the demands placed on a seafarer do not exceed their ability to carry out a task without risk to themselves and others.

The shipowner shall ensure seafarers are provided with adequate and appropriate health and safety training and instruction. The training does not necessarily have to involve formal classroom training. It can involve instructing seafarers with what they should or should not do, or simply giving information in order for the seafarer to be able to carry out their tasks in a safe manner.

The training and instruction shall be provided before the seafarer is assigned to shipboard duties. This is in addition to the familiarisation training required to be given to seafarers as required by the IMO STCW Convention and the relevant Isle of Man regulations. Training required in a health and safety context is more specific training to the task the seafarer is to perform. For example the training required for an AB to work aloft safely, or before an engineer uses a valve grinder they are not familiar with.

Training and instruction is also required when seafarers are exposed to new or increased risks because of -

- Being transferred or given a change of responsibilities;
- The introduction of new equipment or a change to equipment already in use;
- The introduction of new technology; or
- The introduction of new shipboard practices, a new system of work or a change to a system of work already in use.

Training shall -

- Be repeated periodically where appropriate;
- Be adapted to take account of any new or changed risks to the health or safety of the seafarers concerned; and
- Take place during the working hours of the seafarers concerned.

4.2 Requirements for employers

As well as the requirement for the shipowner, there is also a requirement for all employers of shipboard staff to provide their employees with safety information. For example the employer of a remotely operated vehicle (ROV) crew on an offshore support vessel. The employer shall ensure their employees who have been tasked with carrying out work on board the vessel shall be provided with information on-

- Any special occupational qualifications required by the employee to carry out their work safely;
- The specific features of the jobs to be filled by those employees (in so far as those features are likely to affect their health and safety); and
- Any health surveillance required to be provided to employees under these or other relevant regulations. (Refer to Section 6 on guidance for health surveillance).

SECTION 5

Risk Assessment

5.1 General requirements for Risk Assessment

The shipowner has to ensure as far as is reasonably practicable, the health and safety of seafarers employed on board the ship.

Two of the requirements of this duty are that the following principles are applied -

1. The avoidance of risks, and;
2. The evaluation and action to minimise unavoidable risks.

By extending these requirements a sufficient assessment of the risks to health and safety of seafarers arising from the normal course of their duties or in connection with any shipboard activities is required to be made. This is to identify seafarers at particular risk in the performance of their duties and identify any measures required to be made to eliminate or reduce the risk.

In general terms a risk assessment is required to be undertaken in any shipboard activity which may form part of a seafarer's duty. Risk assessments are also required for vessels subject to the ISM Code and these additional requirements are stated in MSN034 Risk Assessment for ISM Compliance.

The requirements for risk assessments are -

1. The risk assessment shall be reviewed if;
 - a. There is reason to suspect that it is no longer valid;
 - b. Or there has been a significant change in the matters to which it relates, and where such a review identifies a need for any changes to procedures or practices, those changes shall be made.
2. Any significant findings from the risk assessment shall be recorded and made available to seafarers;
3. The shipowner shall refer to appropriate statistical information from their ships and any general statistics provided by the Ship Registry when conducting risk assessments; and
4. Whenever a risk assessment identifies the need for any changes to procedures or practice, these shall be made.

5.2 Employers

Where there are other employees on board the vessel who are employed by an employer who is not the shipowner, then the shipowner shall -

- a. Co-ordinate arrangements for the protection of all persons employed on the vessel and the prevention of risk to their health and safety; and
- b. Ensure that all persons employed on the vessel are informed so far as is practicable, of the risks to health arising on board ship and of the arrangements for co-ordination referred to above.

Therefore the shipowner shall ensure that where necessary risk assessments are being carried out to include the activities of these employees, using the same principles as for the risk assessments required for the seafarers on the vessel.

5.3 Conducting Risk Assessments

A risk assessment is simply a careful examination of what, in the nature of operations, could cause harm, so that decisions can be made as to whether enough precautions have been taken or whether more should be done to prevent harm. The aim is to minimise accidents and ill health on board the ship.

The assessment should be carried out by a person experienced in the tasks that are being assessed. For example a risk assessment for working aloft could be carried out by the Chief Officer.

There are not any fixed rules for how a risk assessment should be conducted, although any significant findings from the risk assessment have to be recorded and made available to seafarers on the vessel.

5.4 Further Information

Guidance for conducting risk assessments can be found in the following publications;

- Health and Safety Executive, Five steps to risk assessment (INDG 163 (rev2) /06/06).
- British Standard 8800:2004 Occupational health and safety management systems, guide
- MCA Code of Safe Working Practice for Merchant Seamen 2009 edition

SECTION 6

Health Surveillance

6.1 General requirements for health surveillance

One of the outcomes of a risk assessment may be the requirement that health surveillance is carried out.

The reason for health surveillance is to identify early signs of ill health that may be caused by occupational hazards. This is so action can be taken to protect seafarers at an early stage from further harm.

In order for this to be achieved, procedures can be put into place which may include -

- Simple methods, such as if a seafarer has been working with chemicals, looking for skin damage on hands;
- Enquiries about symptoms, such as if a seafarer regularly works with paints or solvents issue a health questionnaire asking if they have developed any breathing difficulties;
- Periodic checks on seafarers, such as hearing tests, a lung function test (spirometry test), testing blood, or urine samples;
- Or more involved medical examinations (in addition to medical examinations for seafarer's medical certificates).

Health surveillance is beneficial because it forms another source of information to help protect seafarers from illness caused by exposure to health risks on board the ship. The risks can then be managed more effectively, how existing control measures are working can be evaluated, and further steps required can be determined.

Health surveillance should not be used as a substitute for measures to control risks to health and safety.

6.2 When health surveillance should be introduced

When a risk assessment has identified that there is a potential long term risk to the seafarer's health, further steps will have to be taken which may include health surveillance.

Examples of when health surveillance may be undertaken are when seafarers are working -

- with hazardous chemical agents;
- with substances that may cause occupational lung disease;
- in areas with high noise levels;
- with machinery which produces hand-arm or whole body vibration;

- with asbestos or lead.

6.3 Who can carry out health surveillance

Health surveillance can be carried out by -

- Seafarers checking themselves for signs or symptoms of ill health, if this is the case the seafarer should be trained on what to look for and whom to report the symptoms to;
- The shipowner requiring seafarers to regularly complete health surveys;
- For certain hazards, clinical examinations may be required to be carried out by an occupational health professional (such as a doctor or a nurse with appropriate training and experience).

Seafarers should be informed of the results of any health surveillance that has been carried out, and confidentiality shall be maintained in respect of individual health records containing clinical information.

6.4 Further Information

Further information and guidance on health surveillance can be found in –

- Health and Safety Executive; Understanding health surveillance at work, (INDG304, revised 09/09)

SECTION 7 Young Persons

Risk Assessment

Young people (aged 16 or 17) can be at particular risk when working on board a ship because they may lack experience, training and awareness.

The shipowner is therefore required to carry out risk assessments to assess the health and safety risks to young people working on board the ship. These assessments may be adapted from a general risk assessment, but shall take into account that young people are likely to be inexperienced, unaware of health and safety risks and physically or mentally immature.

The risk assessment shall be completed before the young seafarer begins work and should pay particular attention to -

- How the workplace is fitted and laid out;
- What type of work equipment will be used and how it will be handled;
- The organisation of processes and activities;
- The extent of the health and safety training provided or to be provided to the young persons concerned; and
- Any risks from agents, processes and work as detailed in the Schedule.

Health Assessment

If the risk assessment shows there is a risk to the young persons safety, physical or mental health, or where a young person is likely to be required to work at night, a health assessment shall be made.

A health assessment is an assessment of the young person's health and capacities which has to be made before the young person starts work. This is to ensure the young person has the physical and mental capacity to carry out the task. Further monitoring of the young seafarers health shall be carried out at regular intervals while the task is being carried out. This is to ensure the task is still being carried out safely, and the seafarer remains physically and mentally able to carry out the task. Any cost associated with a health assessment shall not be charged to the young person.

Restrictions on tasks for young seafarers

Young seafarers are not permitted to carry out the tasks stated in the Schedule unless they are appropriately supervised and have been instructed in the task.

The supervision and instruction is not required if the young seafarer is recognized as being fully qualified in a pertinent skill. For example, a young seafarer could be allowed to work on electrical equipment unaided if the seafarer has completed an electrical training course in their home country. However it is considered unlikely because of a young seafarer's age that they will be qualified to carry out a task shown in the schedule.

Health Education for young seafarers

The shipowner shall ensure that young seafarers have received guidance on the detrimental effects to their health and well being of the abuse of alcohol and drugs and other potentially harmful substances, and the risk and concerns relating to HIV/AIDS and of other health risk related activities.

SCHEDULE – LIST OF AGENTS, PROCESSES AND WORK

This list does not cover all types of agents, processes and work.

Any work involving the presence of;

1. AGENTS

1. Physical agents, including

- a) Ionising radiation.
- b) Non-ionising electromagnetic radiation.
- c) Work in a high pressure atmosphere, for example, in pressurised containers, diving.

2. Biological agents,

Biological agents classified as group 2, 3 or 4 of Directive 2000/54/EC of the European Parliament and of the council of 18 September 2000, on the protection of workers from risks related to exposure to biological agents at work (seventh individual directive within the meaning of Article 16(1) of Directive 89/391/EEC.)

3. Chemical agents

- a) Hazardous Chemical Agents*
- b) Substances and preparations referred to as carcinogens in Article 2 (a) of Directive 2004/37/EC of the European Parliament and of the council of 29 April 2004, on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Sixth individual directive within the meaning of Article 16(1) of Council Directive 89/391/EEC)
- c) Lead and compounds thereof, in as much as the agents in question are absorbable by the human organism.
- d) Asbestos.

II. PROCESSES AND WORK

- 1. Work involving exposure to polycyclic aromatic hydrocarbons present in coal soot, coal tar or coal pitch.
- 2. Work involving exposure to hard wood dusts.
- 3. Handling of devices, pyrotechnics or other objects containing explosives.
- 4. Working with animals.
- 5. Work with vats, tanks, reservoirs or carboys containing or having contained chemical agents.

6. Work involving the handling of equipment for the production, storage or application of compressed, liquefied or dissolved gases.
7. Work involving a risk of structural collapse.
8. Work involving electrical hazards.
9. Work involving the operation of hoisting or other power machinery and tools, or acting as signallers to operators of such equipment.
10. Entry into boilers, tanks, and cofferdam.
11. Handling mooring, tow lines or anchoring equipment.
12. Working aloft.
13. Working on deck in heavy weather.
14. Working with flammable liquids and flammable gases.
15. Work which involves exposure to extremes of cold or heat.
16. Work which involves exposure to a high level of noise.
17. Work involving hand-arm vibration.
18. Work involving whole-body vibration.
19. The cleaning of catering machinery.
20. The handling or taking charge of ships' boats.
21. The lifting, moving or carrying of heavy loads or objects.
22. Working at night.

ANNEX 2

Noise, Vibration and Chemicals

Guidance on measures to reduce and prevent the risk of exposure to noise, vibration and chemicals

The shipowner has a duty to ensure reasonable precautions are taken to reduce and prevent the risk of exposure to harmful levels of ambient factors and chemicals on board the vessel.

Noise and Vibration

This Annex gives guidance on the two most common ambient factors found on board ship, noise and vibration. The shipowner can either follow the guidance given in this Annex or use an equivalent standard. An equivalent standard could be a specialist consultant attending the vessel to determine the noise and vibration levels on board the ship, and ensuring where necessary the exposure levels are eliminated or controlled.

During an MLC inspection the inspector will be checking to ensure that the noise and vibration levels have been evaluated. Where any of the exposure values have been exceeded the inspector will also be looking for evidence that the appropriate action as described in this Annex has been taken.

The noise and vibration assessment will have to be reviewed if there are any significant changes in work conditions or if any health surveillance undertaken indicates seafarer's health is being affected. Noise and vibration levels can increase on a ship overtime due to wear on machinery or a change of work equipment so it is recommended that the noise and vibration assessment is reviewed periodically at 2 yearly intervals.

Hazardous Chemical agents

The guidance on Hazardous Chemical Agents on board ship explains how the shipowner can reduce and prevent the risk of exposure to chemicals. In most cases the guidance given in this section can be carried out by the seafarers on the vessel.

Other Ambient Factors

For information on eliminating and controlling other ambient factors such as ionizing radiation, electric and magnetic fields, heat and cold and optical radiation, guidance can be found in the following publication -

- ILO Code of Practice; Ambient Factors in the Workplace, Geneva 2001.

SECTION 1

Exposure to Noise

1.1 Why seafarers should be protected from exposure to noise

Noise on board ships can cause hearing loss which can be temporary or permanent.

People can experience temporary deafness after leaving a noisy place which although normally recovers within a few hours should not be ignored. It is a sign that continued exposure could cause permanent damage. Permanent hearing damage can be caused immediately by sudden extremely loud explosive noises such as from cartridge-operated machines.

Hearing loss is usually gradual because of prolonged exposure to noise, such as working in an engine room without wearing hearing protection. It may only be when damage caused by noise over the years combines with hearing loss due to ageing that people realise how deaf they have become.

Hearing loss is not the only problem. People may develop tinnitus (ringing, whistling, buzzing or humming in the ears), a distressing condition which can lead to disturbed sleep.

1.2 Risk Assessment for noise levels

A risk assessment shall be carried out to determine if there is a noise problem on board the ship and what is required to be done to protect the health and safety of seafarers on the vessel who are exposed to noise. The risk assessment shall determine -

1. Whether the exposure action values and the exposure limit values are exceeded;
2. The daily or weekly personal noise exposure of seafarers;
3. The effects of noise on the health and safety of a seafarer or groups of seafarers whose health is at particular risk from such exposure.

In carrying out the risk assessment the following should be considered -

1. The level, type and duration of exposure to noise, including any exposure to impulsive noise;
2. So far as practicable, the effects on health and safety of seafarers resulting from the interaction between noise and the use of toxic substances and between noise and vibration;
3. Any indirect effects on seafarers health and safety resulting from interactions between noise and audible warning signals or other sounds that need to be observed in order to reduce risks;
4. Any information on noise emissions provided by manufacturers of work equipment;
5. The availability of alternative work equipment designed to reduce the emission of noise;
6. The extension of exposure to noise beyond normal working hours;
7. Appropriate information obtained following health surveillance, including, where possible, published information; and
8. The availability of personal hearing protection which adequately protect hearing.

The risk assessment shall;

1. Record the significant findings and the measures the shipowner has taken or intends to take to eliminate or control the exposure to noise;
2. State the hearing protection made available;
3. Be reviewed if there are any significant changes in working conditions which affect its validity, or if the results of any health surveillance undertaken indicate that a further risk assessment is necessary;
4. Be retained on the vessel.

1.3 Exposure limit values and exposure action values

When exposure to noise varies markedly from day to day weekly personal noise exposure rather than daily noise exposure limits may be used.

	Daily or weekly personal noise exposure	Peak sound pressure	Action required
Lower exposure action values	80dB (A-weighted)	135dB (C-weighted)	Shipowners are required to provide hearing protection.
Upper exposure action values	85dB (A-weighted)	137 dB (C-weighted)	Seafarers are required to wear hearing protection. The area shall be identified by a sign specifying hearing protection is to be worn.
Exposure limit values This takes account of any reduction in exposure provided by hearing protection.	87 dB (A-weighted)	140 dB (C-weighted)	Seafarers shall not be exposed to noise exceeding this value.

Note: A-weighted is used to measure average noise levels and C-weighted is used to measure peak, impact or explosive noises.

1.4 Hearing protection

Hearing protection has to be made available by the shipowner to any seafarer who is likely to be exposed to noise above the lower exposure action values.

If the noise levels are above the upper action exposure values, it must be ensured that hearing protection is worn by the seafarers.

Seafarers shall not work in areas where the exposure limit values are exceeded.

1.5 Use of signage

For all areas of the ship where the noise is likely to exceed the upper exposure action value it has to be ensured that the area is identified by a sign indicating that hearing protection must be worn.

1.6 Seafarer information and training

If the risk assessment indicates that seafarers are exposed to noise at or above the lower exposure action value then suitable and sufficient information, instruction and training shall be provided which may include -

1. The nature of such risks;
2. The measures taken to eliminate or reduce to as low as is reasonably practicable the risks from noise, including the circumstances in which such measures apply;
3. The exposure limit values and the exposure action values;
4. The results of the risk assessment, together with an explanation of the significance and potential of such risks;
5. The correct use of hearing protectors;
6. The circumstances in which seafarers are entitled to health surveillance;
7. Safe working practices to minimise exposure to noise;
8. How to detect and report signs of hearing damage; and
9. The importance of detecting and reporting signs of hearing damage.

1.7 Technical or organisational measures

The risks arising from exposure to noise which are identified by the risk assessment shall be either -

1. Eliminated at their source; or
2. Reduced to a level which is as low as is reasonably practicable.

If the risk assessment shows that the upper exposure action values are exceeded, a programme of technical or organisational measures (or both) should be established and implemented to reduce the exposure to noise, taking the following into consideration -

1. Other working methods that reduce exposure to noise;
2. Use of appropriate work equipment and replacing existing equipment with equipment which emits the least possible noise;

3. The design and layout of workplaces and workstations;
4. Suitable and sufficient information and training for seafarers, so work equipment may be used correctly, in order to reduce exposure to noise to as low as is reasonably practicable;
5. Reduction of noise by technical means such as -
 - a. Reducing airborne noise by use of methods such as shields, enclosures or sound absorbent coverings; and
 - b. Reducing structure-borne noise by damping or isolation;
6. Appropriate maintenance programmes for machinery;
7. Imposing a limit on the time a seafarer spends in noisy areas or working with noisy equipment.

1.8 Health Surveillance (hearing checks)

The risk assessment may require that seafarers are to be provided with health surveillance. Health surveillance in this context is an assessment of the state of health of a seafarer so as to provide an early diagnosis of any hearing loss due to noise.

Health surveillance can be carried out by regular checks of a seafarers hearing by an occupational health professional.

Ideally health surveillance would be started before seafarers are exposed to noise to give a baseline. It can however be introduced at any time, and regular checks can be carried out annually for the first two years and then at three yearly intervals. However, if any problems with hearing are detected, or the risk of hearing damage is high this may have to be more frequent.

The results of any tests can be used to monitor the seafarers hearing during their employment. The seafarer shall always be informed about the results of their hearing checks.

1.9 Accommodation and service spaces on the vessel

The noise level for accommodation and service spaces should meet the following limits -

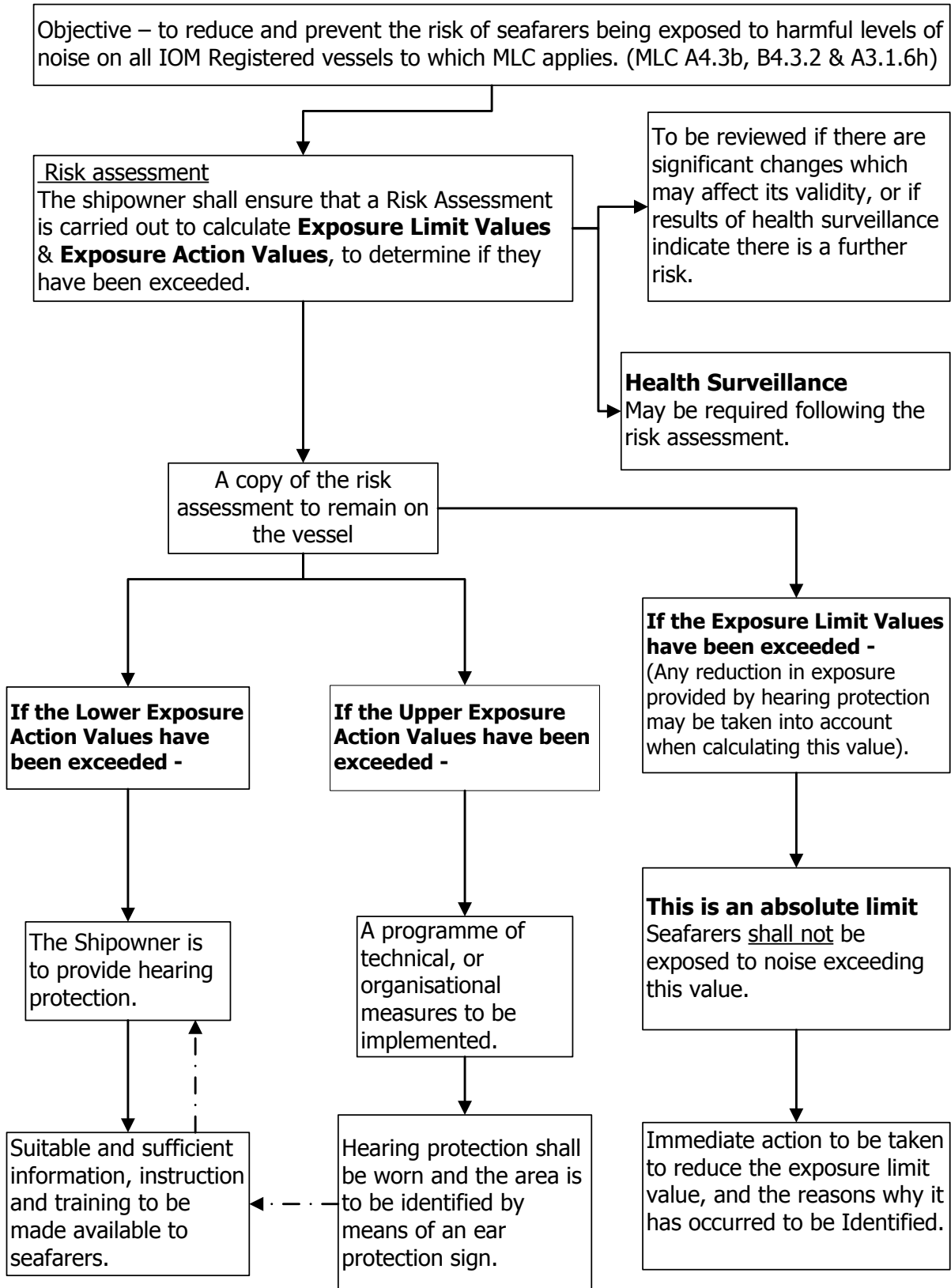
Space	Maximum Noise Limit dB(A)
Accommodation spaces	
Cabins and hospitals	60
Mess rooms	65
Recreation room	65
Open recreation areas	75
Offices	65
Service spaces	
Galleys, without food processing equipment operating	75
Serveries and pantries	75

1.10 Further Information

Further guidance on controlling noise levels in the workplace can be found in -

- IMO Resolution A.468(XII); Code on noise levels on board ships.
- Health and Safety Executive publication; Noise at work, INDG362 (rev1), revised 10/05.
- ILO Code of Practice; Ambient Factors in the Workplace, Geneva 2001.

Control of noise on Isle of Man registered vessels



SECTION 2

Exposure to Vibration

2.1 Why seafarers should be protected from exposure to vibration

Vibration can cause long-term damage to hands and fingers and severe back pain. There are two types of vibration to be considered, hand arm vibration and whole body vibration.

Hand Arm Vibration is mechanical vibration which is transmitted into the hands during a work activity such as using hand held power tools, for example needle scalers or hand-held grinders. Regular and frequent exposure to hand-arm vibration can lead to permanent health effects collectively known as hand-arm vibration syndrome, as well as specific health problems such as carpal tunnel syndrome. This is most likely when contact with a vibrating tool or work process is a regular part of a seafarers job. Occasional exposure is unlikely to cause ill health.

Whole Body Vibration is mechanical vibration which is transmitted into the body through the supporting surface when seated or standing during a work activity. For example, riding in a rescue boat in choppy seas, or standing next to the ship's main engine. One of the primary health effects of whole body vibration can be back pain.

2.2 Risk Assessment for mechanical vibration

The shipowner shall ensure that a risk assessment is carried out to assess the level of mechanical vibration to which seafarers are exposed, which shall be based on -

1. Observation of specific working practices;
For example if there are any shipboard tasks which involve regular exposure to vibration such as regular use of needle scalers, or vibration that emanates from the vessel itself;
2. Information provided by the manufacturer of the equipment and any other relevant information on the probable magnitude of vibration in the particular conditions of use;
3. If necessary a measurement of the level of mechanical vibration to which seafarers are likely to be exposed.

In carrying out the risk assessment the following shall be considered -

1. The level, type and duration of exposure, including any exposure to intermittent vibration or repeated shocks;
2. The exposure limit values and the exposure action values, and if they have been exceeded;
3. The health and safety of seafarers who may be particularly sensitive to mechanical vibration;

4. Any indirect effect on seafarers safety which may be caused by interaction between equipment subject to mechanical vibration and the workplace or other work equipment;
5. The existence of replacement equipment designed to reduce exposure to vibration;
6. The extension of exposure to whole body vibration beyond normal working hours;
7. The effect of specific working conditions, such as low temperatures; and
8. Appropriate information obtained from health surveillance, including published information, so far as possible.

The risk assessment shall -

1. Record the significant findings and any measures the shipowner has taken or intends to take to eliminate or control the exposure to vibration;
2. Be reviewed if there are any significant changes in working conditions which affect its validity, or if the results of any health surveillance undertaken indicate that a further risk assessment is necessary;
3. If the conclusion is a detailed risk assessment is not necessary the risk assessment shall explain the reasons given;
4. Be retained on the vessel.

2.3 Exposure action values and exposure limit values

Hand Arm Vibration

To calculate how long a seafarer is exposed to Hand Arm Vibration, the relevant vibration data and the seafarer's exposure time shall be collected and it will be necessary to calculate the seafarer's daily exposure. This can be done by -

- a. Using the exposure calculator which can be found on the HSE's vibration web pages at www.hse.gov.uk/vibration, or
- b. Using the 'exposure points' table below

Tool vibration (m/s ²)	3	4	5	6	7	10	12	15
Points per hour (approximate)	20	30	50	70	100	200	300	450

Multiply the points assigned to the tool vibration by the number of hours of daily 'trigger time' for the tool(s) and then compare the total with the exposure action value and exposure limit value points.

100 points per day = exposure action value
 400 points per day = exposure limit value

Whole Body Vibration

It is not always necessary to measure seafarers' exposure to whole body vibration and on most vessels the daily exposures will be below the limit value. It is generally the smaller fast craft such as RIBs when operated in conditions that generate high levels of vibration or jolting may exceed the exposure limit value. In most circumstances it is likely to be more effective for shipowners to direct their efforts towards controlling the risks rather than trying to assess vibration exposures precisely.

If the decision is made to check the vibration levels the information in the manufacturer's handbook can be referred to, or the data published on the HSE website and the exposure calculator can be used –

www.hse.gov.uk/vibration

Maximum exposure levels

	Hand Arm Vibration	Whole Body Vibration	
Daily Exposure Action Value*	2.5m/s ²	0.5m/s ²	Above this limit, the Shipowner is required to reduce the seafarers exposure to vibration.
Daily Exposure Limit Value*	5.0m/s ²	1.15m/s ²	Maximum amount of vibration a seafarer may be exposed to on any single day.

*Standardised to eight hour reference period

2.4 Seafarer information and training

If the risk assessment indicates that there is a risk to the health of seafarers who are liable to be exposed to vibration, the shipowner shall provide suitable and sufficient information, instruction and training which may include -

- a) The nature of such risks;
- b) The measures taken in order to eliminate or reduce to as low as reasonably practicable the risks from mechanical vibration;
- c) The exposure limit values and the exposure action values;
- d) The circumstances in which seafarers are entitled to health surveillance;
- e) The potential injuries which may arise from the work equipment in use;
- f) Safe working practices to minimise exposure to mechanical vibration;
- g) How to detect and report signs of injury; and
- h) The importance of detecting and reporting signs of injury.

2.5 Technical or organisational measures

The shipowner shall ensure that the risks arising from exposure to mechanical vibration which are identified by the risk assessment are either –

1. Eliminated at their source; or
2. Reduced to a level which is as low as is reasonably practicable.

Where it is not reasonably practicable to eliminate risk at source and an exposure action value is likely to be exceeded the shipowner shall reduce exposure to as low as is reasonably practicable. This shall be by establishing and implementing a programme of organisational and technical measures appropriate to the activity, which may in particular include -

1. Other working methods that require less exposure to vibration;
2. Providing appropriate work equipment of appropriate ergonomic design which produces the least possible vibration;
3. Implementing appropriate maintenance programmes for work equipment, the workplace and workplace systems;
4. Altering the design and layout of workplaces and work stations;
5. Providing adequate information and training to seafarers to ensure that work equipment is used correctly and safely in order to reduce exposure to mechanical vibration to as low as is reasonably practicable;
6. Imposing limits on the duration and intensity of exposure to mechanical vibration;
7. Providing personal protective equipment against hand-arm vibration;
8. Adapting measures to seafarers who are particularly sensitive to vibration.

2.6 Re-assessing the organisational and technical measures

Following implementation of the organisational and technical measures the shipowner shall re-assess the effectiveness of such measures and if the daily exposure limit value has still been exceeded the shipowner shall -

1. Identify the reasons why the limit has been exceeded;
2. Take such action as is necessary to reduce exposure to vibration below the exposure limit value; and
3. Amend the organisational and technical measures already taken to ensure that the limit is not exceeded again.

2.7 Health surveillance

The risk assessment may require that seafarers are to be provided with health surveillance. Health surveillance for mechanical vibration means an assessment of the state of health of a seafarer related to exposure to mechanical vibration. With the intention of preventing and diagnosing rapidly any disorder linked with exposure to mechanical vibration.

Health surveillance can be carried out by –

- Regularly seeking information from seafarers by using a questionnaire.
- Using an occupational health service provider to carry out the service.

2.8 When whole body vibration can be exceeded

The Ship Registry may allow the exposure limits to be exceeded in relation to whole-body vibration only. This may be where the specific design characteristics of the ship do not make it possible to comply with the whole body exposure limit value, whatever technical and organisational measures are adopted.

This is subject to the following conditions being satisfied;

1. The exposure value averaged over 40 hours is less than the exposure limit value;
2. There is evidence to show that the risks from the pattern of exposure are lower than those from exposure at the exposure limit value;
3. The risk is reduced to as low as is reasonably practicable;
4. The seafarers concerned are subject to health surveillance;
5. The seafarers concerned or their representatives have been consulted.

2.9 Accommodation and rest spaces

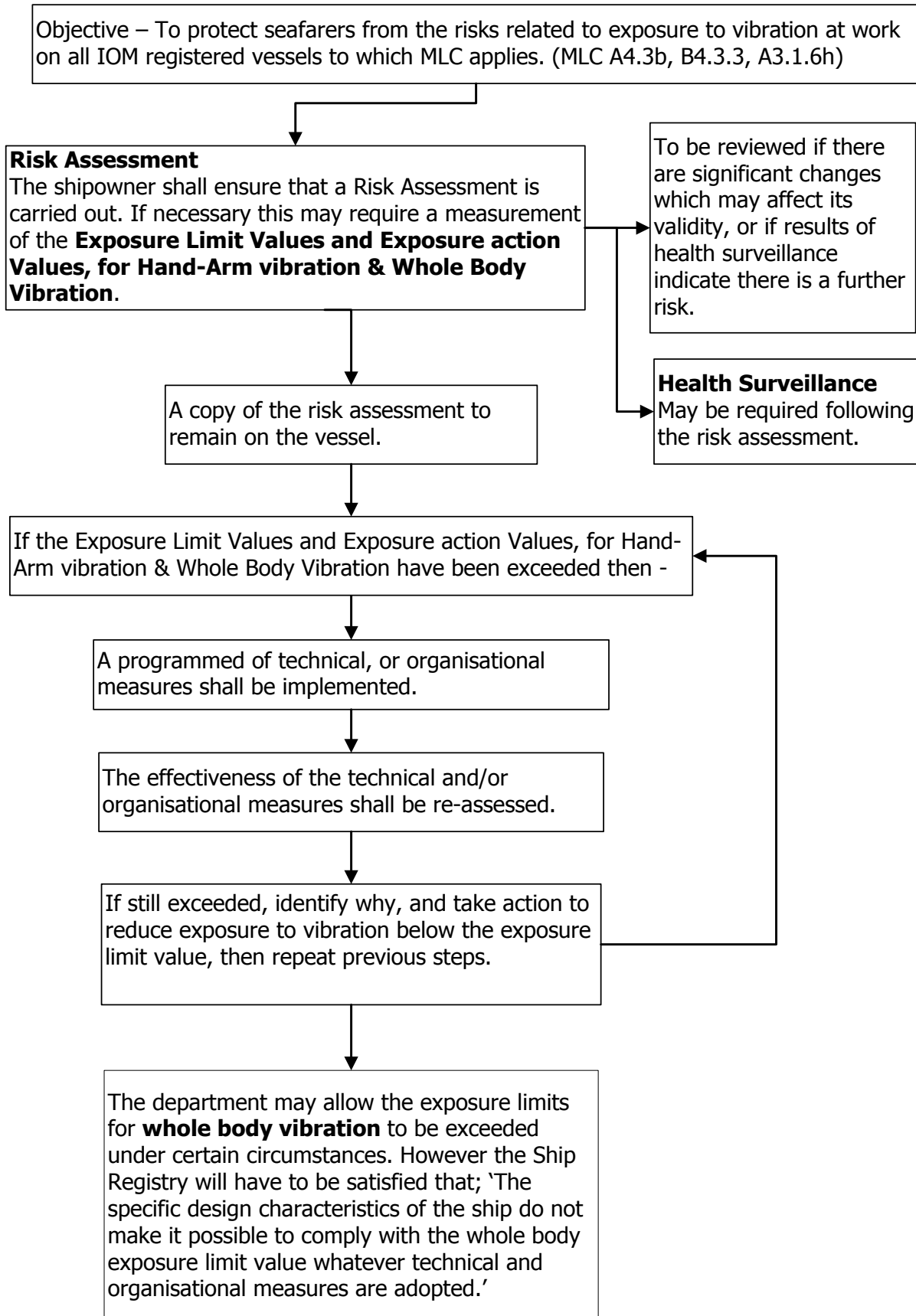
Except in an emergency, vibration in accommodation and rest spaces shall be reduced to a level compatible with their purpose and use.

2.10 Further Information

Further guidance on controlling vibration in the workplace can be found in –

- Health and Safety Executive publication; Control the risks from hand-arm vibration, INDG175 (rev2).
- Health and Safety Executive publication; Control back-pain risks from whole-body vibration, INDG242 (rev1).
- ILO Code of Practice; Ambient Factors in the Workplace, Geneva 2001.

Control of vibration on Isle of Man registered vessels



SECTION 3

Hazardous Chemical Agents

3.1 The shipowner has a duty to reduce and prevent the risk of exposure to chemicals on board ship.

This chapter gives guidance to the shipowner on how to meet this requirement. However, where there are more stringent or specific provisions relating to the transport of hazardous chemical agents the more stringent requirements shall be applied, for example the IMDG Code, the IBC Code, or the IGC Code.

3.2 Definitions of Hazardous Chemical Agents

A hazardous chemical agent effectively means any chemical element or compound with the potential to cause harm if inhaled, ingested or by coming into contact with or absorbed through the skin and could potentially include chemical substances such as paints, cleaning materials, fumigants and pesticides.

In a legal context the definition of hazardous chemical agent is any dangerous substances and preparation according to the criteria in the following directives -

- Council Directive 67/548/EEC for dangerous substances
- Council Directive 88/379/EEC for dangerous preparations

However these directives will be revoked on 01/06/15 and will be replaced by;

- (EC) No 1272/2008 classification of labelling and packaging of substances and mixtures (CLP Regulations)

Practically the simplest method is to check with the supplier of the chemicals for any hazards the chemical may have, and inspect the hazard data sheets of any chemicals arriving on board.

Alternatively a list of hazardous substances can be found in; Table 3.2, Part 3 of Annex VI to the CLP Regulations. This states the list of harmonised classification and labelling of hazardous substances, and is available on the UK's Health and Safety Executive website.

<http://www.hse.gov.uk/ghs/eureg.htm> *(Please note this is a very large document)*

This list does not however include dangerous preparations or hazardous mixtures.

3.3 Risk Assessment

The Shipowner should carry out a risk assessment to determine if Hazardous Chemical Agents are on the vessel.

If there are Hazardous Chemical Agents on the vessel then any risks to the health and safety of seafarers has to be assessed, taking the following into consideration -

- a) Their hazardous properties;
- b) Information on health and safety provided by the supplier;
- c) The level, type and duration of exposure;
- d) The circumstances of work involving such agents, including their amount;
- e) The occupational exposure limit values and binding biological limit values relevant to those agents;
- f) The effect of preventive measures taken or to be taken; and
- g) Where available, the conclusions to be drawn from any health surveillance already undertaken.

The risk assessment should -

- a) Cover activities such as maintenance. In respect of which it is foreseeable that there is a potential for significant exposure, or which may result in harmful effects to health and safety for other reasons.
- b) In the case when a seafarer may be exposed to several hazardous chemical agents the assessment should be on the basis of the risks presented by all the chemical agents in combination.
- c) Be retained on the vessel, and reviewed if there are any significant changes in working conditions which affects its validity, or if the results of health surveillance indicate that a further risk assessment is necessary.

If the risk assessment shows that there is no risk then a statement justifying this has to be included on the risk assessment.

3.4 General principles for prevention of risks

If the risk assessment concludes that there is a risk to the health and safety of seafarers from hazardous chemical agents then the risks need to be eliminated, or reduced to a minimum by appropriate means, such as -

- a) The choice of chemicals, and the quantity of chemicals on the vessel that eliminate or minimise the risk;

- b) The choice of technology that eliminates or minimises the risk;
- c) Suitable working procedures, including arrangements for the safe handling, storage and transport on the ship of hazardous chemical agents and of waste containing such agents;
- d) The adoption of adequate occupational hygiene measures;
- e) Where using the above measures is not sufficient, the provision and proper maintenance of personal protective equipment and clothing at no cost to the seafarer, and the implementation of measures to ensure their use;
- f) Reducing to a minimum the number of seafarers exposed or likely to be exposed;
- g) Reducing to a minimum the duration and intensity of exposure; and,
- h) Considering relevant safety drills.

Additionally to protect the health of the seafarers from an accident, incident or emergency related to the presence of a hazardous chemical agent first aid facilities are to be provided.

3.5 Exposure Limits

It is not expected that this requirement will be relevant on most Isle of Man registered vessels. However, if there are any hazardous chemical agents on the vessel with an occupational exposure limit value the shipowner shall ensure that seafarers are not exposed to an extent which exceeds that limit.

European directives are available on the following website –

<http://eur-lex.europa.eu/en/index.htm>

The exposure limit values can be found in the following publications:-

- a) any indicative occupational exposure limit value established for that agent in the Annex to Commission Directive 91/322/EEC on establishing indicative limit values by implementing Council Directive 80/1107/EEC on the protection of workers from the risks related to exposure to chemical, physical and biological agents at work, or
- b) any indicative occupational exposure limit value established for that agent in Commission Directive 2006/15/EC establishing a second list of indicative occupational exposure limit values and in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC, or
- c) where more stringent, any workplace exposure limit established for that agent in Table 1 of publication EH40, list of approved workplace exposure limits (as consolidated with amendments October 2007), approved by the UK Health and Safety Commission. Available on the UK's Health and Safety Executive website – <http://www.hse.gov.uk/>

3.6 Labelling and Safety Data Sheets

All chemicals used at work shall be labelled or marked and the chemical safety data sheets are to be provided and made available to seafarers, in a language understood by the seafarer.

The chemical safety data sheets have to contain the following information –

- Their identity of the substance or preparation;
- The supplier, or the company undertaking the identification;
- Their classification;
- Hazards identification;
- Safety precautions; and
- Emergency procedures.

When chemicals that have not been labelled or marked or when chemical safety data sheets have not been provided it shall be ensured that the relevant information from the supplier or from other reasonably available sources is obtained, and the chemicals shall not be used until such information is obtained.

A record should also be maintained of the hazardous chemicals used on the vessel which should be cross-referenced to the appropriate chemical safety data sheets. This record shall be accessible to all seafarers on the vessel.

3.7 Transfer of chemicals

When chemicals are transferred into other containers or equipment for storage, the contents shall be indicated making known their identity, any hazards associated with their use and any safety precautions to be observed.

3.8 Health Surveillance for exposure to chemicals

The risk assessment may require that seafarers are to be provided with health surveillance. Health surveillance in this context means the assessment of the seafarer to determine their state of health, as related to exposure to chemical agents on the vessel.

Health surveillance when working with chemicals is dependent on the harmful effects of the particular chemical but could involve simple health checks such as regular visual examinations of the skin.

3.9 Information and training for seafarers

Includes -

- a) Informing the seafarer of the hazards associated with exposure to chemicals used at the workplace;
- b) Instructing the seafarers on how to obtain and use the information provided on labels and chemical safety data sheets;
- c) Training the seafarers on a continuing basis in the practices and procedures to be followed for safety in the use of chemicals at work.

3.10 Disposal of chemicals

Hazardous chemicals which are no longer required and containers which have been emptied but which may contain residues of hazardous chemicals shall be handled or disposed of in accordance with the manufacturer's instructions. This shall be in a manner which eliminates or minimises the risk to health and safety and to the environment.

3.11 Rights of seafarers

Seafarers have the right to remove themselves from danger resulting from the use of chemicals when they have reasonable justification to believe there is a risk to their safety of health, and shall inform the safety officer immediately.

Control of Chemicals on Isle of Man registered Vessels

Objective – To protect seafarers from the risk of exposure to hazardous chemical agents on all IOM Registered vessels. (MLC A4.3b & A3.1.6h)

Risk Assessment

The shipowner shall ensure that a Risk Assessment is carried out to assess whether Hazardous Chemical Agents are present on the vessel.

To be reviewed if there are significant changes which may affect its validity, or if results of health surveillance indicate there is a further risk.

A copy of the risk assessment to be maintained on the vessel

Health Surveillance may be required following the risk assessment.

If there is a risk the shipowner shall eliminate or reduce to a minimum the risks to the health and safety of the seafarer.

To protect seafarers all hazardous chemical agents on the vessel shall -

Be labelled and have a Chemical Safety Data sheet attached and a record of all the hazardous chemical agents shall be maintained on the vessel.

(If applicable) have their exposure limit values determined.
Seafarers shall not be exposed to hazardous chemicals to an extent which exceeds the chemicals occupational exposure limit values.

When hazardous chemicals are transferred the contents and any hazards and safety precautions shall be indicated on the new container.

Information and training shall be given to inform, instruct and train seafarers in the use of chemicals at work.

Disposal

Hazardous Chemicals and containers shall be disposed of in accordance with the manufacturers instructions and in a manner which eliminates the risk to health and safety and to the environment.

ANNEX 3

Equipment and Machinery on board ships

MLC requires reasonable precautions to prevent occupational accidents injuries and diseases on board ships that may arise from the use of equipment and machinery on board ships.

The Isle of Man Ship Registry has existing legislation which will be updated with the latest standards in order to meet this MLC requirement.

This Annex states the proposed requirements for the following –

Section 1

Lifting Equipment

Section 2

Hatches and Hold Access

Section 3

Means of Access

Section 4

Guarding of work equipment and safety of electrical equipment

Limited Variations

The Ship Registry may approve limited variations to any of the requirements stated in this Annex. Any limited variation has to be requested in writing to the Ship Registry. All requests must state the alternative method to be used which must comply with the MLC standard of reasonable precautions to prevent occupational accidents, injuries and diseases on board ship.

MCA Code of Safe Working Practices for Merchant Seamen.

Various chapters of the Code of Safe Working Practices are referred to in this Annex.

Either a paper copy of an electronic copy of the latest version of this code should be maintained on the vessel and be readily available to all seafarers.

SECTION 1

Lifting Equipment

The Ship Registry has adopted the latest standards in the requirements for testing examination and inspection of lifting equipment. This also now includes criteria relating to lifting operations.

The tests, examinations and inspections stated in this chapter are to ensure all lifting equipment on board Isle of Man registered vessels is initially tested and examined by a competent person. Following on from this periodic checks are required to be carried out to ensure the equipment remains in a safe working condition.

The summary page states the periods when the tests, examinations and inspections are required to be carried out, and defines the Ship Registry's requirements for the 'competent person'.

Lifting equipment in this chapter is defined as "work equipment used for lifting or lowering loads and includes the attachments used for anchoring, fixing or supporting this equipment". These requirements do not apply to lifting appliances for items such as fast rescue craft, ship's lifeboats, and pilot hoists. These appliances are not considered as lifting equipment under this regulation and the SOLAS requirements shall be used instead.

The guidance given in this chapter has been produced to explain the regulations and help prevent accidents with lifting equipment and include the following requirements;

- a. The careful design and selection of *lifting equipment* and *accessories for lifting* for each load it is required to lift;
- b. Ensuring *lifting equipment* is safely positioned and installed;
- c. Testing of *lifting equipment* after installation, repair or modification and every 5 years;
- d. Regular examinations and inspections to be carried out by a competent person;
- e. Marking of *lifting equipment* and *accessories for lifting* with their safe working load(s);
- f. Regular maintenance; and ensuring repairs and modifications are carried out by suitably qualified technicians.
- g. Ensuring *lifting operations* are properly planned and supervised;
- h. Requirements for *lifting equipment* to be used for lifting persons;

Definitions used in this chapter

Accessory for lifting

Means items of equipment for attaching loads to machinery for lifting. This is considered as lifting gear components that are permanently attached to the wires, for example hook blocks and swivels.

Loose gear

Any gear by means of which a load can be attached to lifting equipment but which does not form an integral part of either the lifting equipment or the load.

Load

Includes any material or persons that are lifted by the lifting equipment. In some circumstances, the weight of the lifting accessories, including the hook block will need to be considered as part of the load being lifted.

Competent Person

The phrase competent person is used throughout the lifting appliance regulations; the summary page states the Ship Registry requirement for a competent person in each regulation. However, in all cases the following definition applies;

'A person who is trained and has the necessary skills, practical experience and knowledge of the type of lifting equipment which they are required to inspect. In addition the manufacturers recommended service instructions and maintenance procedures shall be available'.

Thorough Examination

This is 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 lifting equipment or accessory for lifting examined. Additionally it is recommended that, following any overload test or dismantling of gear, that a function test with a nominal load is also carried out before any lifting equipment is put into service. Examinations should look for general material defects such as cracks, distortion, metal fatigue, corrosion and wear and tear that could affect the safe working load and overall strength of the equipment.

Examination Scheme

A scheme drawn up by a person possessing the knowledge or experience needed to competently perform thorough examinations of lifting equipment.

The shipowner should devise a documented system/procedure to ensure that all parts of lifting equipment exposed to conditions that will cause deterioration are properly examined, at the required intervals.

This is a visual inspection by a competent person to establish that no defects or deterioration is present in the equipment and that it remains safe for use.

Strength, Stability and Installation

Strength

The shipowner must ensure the following;

- a. Lifting equipment shall be of steel or other acceptable material to ensure it is of adequate strength and structural stability for each load. Particular regard shall be taken to the stress induced at the mounting and fixing points ensuring the lifting equipment is securely fastened to the vessel's structure.
- b. The maximum Safe Working Load (SWL) and maximum radius of operation of all lifting appliances shall be part of the specification on all new constructions and that all associated ropes, wires, eye-plates, shackles and blocks are also selected and designed to meet these loads.
- c. The vessel's structure, crane, derrick or other lifting device and the supporting structure shall be of sufficient strength to withstand the loads that will be imposed when the lifting equipment is operating at its maximum load moment.

Stability

In addition to the vessel's structure, consideration must be given to the effect upon stability, angle of heel and potential down-flooding from the use of any lifting equipment fitted on the vessel. This is especially important where cranes are fitted on small vessels.

Additionally, prior to installation, a check of the vessel's stability should be carried out by a suitably qualified person to ensure that the vessel is capable of operating safely with the crane fitted and in use. Failure to do this could have serious consequences for the safety of the vessel. Information and instruction on these effects as well as maximum safe working loads, including variable maximum safe working loads where these vary with the crane configuration must be given to the vessels Master in writing.

Accessory for lifting

It must be ensured that any accessory for lifting is not used on a ship unless it is of good and suitable design, of sound construction and material, of adequate strength for the purpose for which it is used and free from patent defect.

The following must be taken into account when selecting accessories for lifting;

- a. Loads to be handled;
- b. Gripping points;
- c. Loose gear for attaching the load, and for attaching the accessories to the lifting equipment;
- d. Atmospheric conditions;
- e. Mode and configuration of slinging.

Any accessories for lifting should be stored in conditions which will not lead to damage or degradation.

The following must also be of good construction and adequate strength for the purpose for which it is to be used and free from patent defect.

- a. Every part of a load that is used in lifting it;
- b. Any loose gear or other item used that can be attached to the load for the purpose of lifting it.

Positioning and installation of lifting equipment

It must be ensured that permanently installed lifting equipment is not used unless it has been positioned or installed in such a way as to minimise the risk, so far as is reasonably practicable, of any of the following occurrences -

- The equipment or a load striking a person;
- A load drifting dangerously or falling freely;
- A load being released unintentionally.

When any lifting equipment, is to be installed or relocated, consideration must be given to its positioning and installation to ensure so far as is reasonably practicable that the specific risks identified are minimised.

Testing, Thorough Examinations and Inspections

Testing

Suitable safety precautions should always be taken before commencement of any tests to ensure the safety of personnel, the adequacy of supporting structures, that the appliance can be controlled, and the stability of the vessel during the tests can be ensured.

No lifting equipment, accessory for lifting or loose gear shall be used in the following circumstances without first being suitably tested by a competent person -

- After manufacture or installation; or
- After any repair or modification which is likely to alter the safe working load or affect the strength or stability of the equipment; or
- within the preceding **five years**;

Upon the completion of every test, the equipment, accessory or loose gear shall be thoroughly examined and certified for use by the person carrying out the test.

These tests shall be witnessed by a 'recognised organisation' or an 'organisation acceptable to the department', as detailed in IOM Shipping Notices.

Any testing should be carried out in accordance with an appropriate lifting code or manufacturer's instructions and include testing of all safety devices.

The following are examples of the type of testing that may be required-

- proof loading the plant concerned; or
- in appropriate cases by testing a sample to destruction, for example sample bolts, and sections of lifting wires or ropes.

Further guidance for testing and inspecting cranes and lifts can be found in -

- BS 7121: Part 2: 1991 – Code of practice for safe use of cranes, Part 2. Inspection, testing and examination. Paragraph 17 – Cranes on water borne craft, has particular relevance.
- BS 5655 Part 10: 1986 Specification for the testing and inspection of electric and hydraulic lifts British Standards institution.
- Health and Safety Executive publication; thorough examination and testing of lifts (INDG339rev1).
- Any relevant classification guidance for crane testing.

Thorough examination and inspection

Where the safety of lifting equipment depends on the installation conditions, it must be inspected by a competent person -

- After installation and before being put into service for the first time; or
- After assembly at a new site or in a new location, this is to ensure that it has been installed correctly in accordance with any manufacturer's instructions, and is both safe to operate and capable of operating safely.

Lifting equipment or any accessory for lifting shall be thoroughly examined by a competent person if it is exposed to conditions causing deterioration which is liable to result in dangerous situations. This is considered to include meteorological conditions, intensive use, the ambient atmosphere in an engine room, holds etc or any other factor likely to cause deterioration.

The requirements are;

- a. A thorough examination is required -
 - In the case of lifting equipment for lifting persons or an accessory for lifting persons, at least every six months;
 - In the case of all other lifting equipment and accessory for lifting at least every 12 months;
 - In either case in accordance with an examination scheme; and
 - Whenever exceptional circumstances (which include modification work, accidents, natural phenomena and prolonged periods of inactivity) which are liable to jeopardise the safety of the lifting equipment have occurred.
- b. An inspection is required -
 - If appropriate an inspection shall be carried out by a competent person at suitable intervals to ensure the health and safety conditions are maintained and that any deterioration can be detected and remedied in good time. The suitable intervals shall be determined from frequency of use and extremes of operating conditions.

Both inspections and tests should include a function test of controls, stops, brakes, safety devices for hoisting gear etc.

Lifting equipment outside and from outside the ship

It must be ensured that no lifting equipment -

1. *Is used outside the ship.* This is considered as being used on the quayside, dock or jetty or on board another ship and operated by workers who are not employed by the shipowner; or,

2. *Is used on the ship.* If the lifting equipment is obtained from outside the ship unless it is accompanied by physical evidence that the last thorough examination required to be carried out has been carried out.

Ensuring defects are remedied

Where the shipowner has been notified of any deficiency in the ship's lifting equipment it shall be ensured that any condition liable to result in a dangerous situation is remedied. In the case of a deficiency in the lifting equipment involving an existing or imminent risk of serious personal injury the lifting equipment shall not be used until the deficiency is rectified. All repairs and modifications shall be carried out by a suitably qualified technician, and the lifting equipment shall be retested as necessary before being taken back into service.

Evidence of examinations and tests to be retained

On completion of the examinations and testing of the lifting equipment the details shall be recorded in a recognised lifting appliances log book such as the ILO register of lifting appliances, chain register or other acceptable document. A copy of the certificates or reports issued after any testing should legally be maintained on the vessel for at least 2 years. However for practical reasons the certificates or reports should be maintained on the vessel until completion of the next tests as evidence that the lifting equipment has been tested.

Marking of lifting equipment

All lifting equipment must be clearly marked to indicate its safe working load. It may be necessary to include more than one marking when such devices can be used in differing configurations e.g. knuckle cranes, or telescopic boom cranes. Alternatively information which clearly indicates the safe working load for each configuration of the work equipment shall be kept with the equipment.

Any lifting equipment which is carried on the ship and whose safe working load varies with its operating radius shall be fitted with an accurate indicator. This shall be clearly visible to the operator, showing the radius of the load lifting attachment at any time and the safe working load corresponding to that radius.

Lifting equipment which is designed for lifting persons shall also be appropriately and clearly marked. Lifting equipment which is not designed for lifting persons but which may be used in error shall be appropriately and clearly marked to the effect that it is not designed for lifting persons.

Each accessory for lifting, and where practical item of loose gear, shall be clearly and legibly marked with its safe working load. Where this is not possible a coding system should be used which easily provides the user with the SWL. An example of such systems could include a colour coding or attaching a label.

Each accessory for lifting which weighs a significant proportion of the safe working load of any lifting equipment with which it is intended to be used shall also be clearly marked with its own weight.

Safe Working Load (SWL)

Is a value or set of values based on the strength and/or stability of the equipment when lifting. A range of safe working loads can be specified for the same equipment when used in different configurations. The SWL is usually expressed in terms of the maximum load that the equipment may safely lift. A load greater than the SWL should not be lifted unless a test is being carried out, in which case all of the following requirements shall be met-

- a) The weight of the load is known (either the load will have a valid certificate or a calibrated load cell can be used for determining the loads weight) and is the appropriate proof load;
- b) The lift is a straight lift by a single appliance;
- c) The competent person specifies in writing that the lift is appropriate in weight and other respects to act as a test of the plant, and agrees to the detailed plan of the lift.

Maintenance

Maintenance includes examinations and testing (requirements stated previously). In order to ensure that all parts of lifting equipment and associated equipment are kept in good repair and working order, regular preventative maintenance should be carried out.

Maintenance should be carried out at least once every 12 months and carried out as per the manufactures instructions, the types of maintenance that may be required are but not limited to -

- a. Greasing of bearings;
- b. Regular checking the condition of all ropes and chains;
- c. Renewing associated lifting equipment when worn or damaged;
- d. Inspecting hollow structures such as gantries or masts;
- e. Regular function tests of controls, stops, brakes, safety devices for hoisting gear etc. (preferably before the start of operations).

Organisation of lifting operations

It must be ensured that every lifting operation involving lifting equipment is -

- Properly planned;
- Appropriately supervised; and
- Carried out in a safe manner.

Planning

The person planning the operation should have adequate practical and theoretical knowledge and experience of planning lifting operations.

Risk assessments are required for shipboard activities which includes lifting operations, any findings from the risk assessment should be addressed while planning the lifting operation.

The degree of planning will vary considerably, and depend upon the type of lifting equipment to be used and the complexity of the lifting operation. Proper planning of lifting operations is a combination of initial planning and planning of individual lifting operations.

Initial planning

To ensure that lifting equipment is provided which is suitable for the range of tasks that it will have to carry out. This should consider the following factors-

- a. The load to be lifted;
- b. Its weight, shape, centre of gravity, availability of lifting points;
- c. Where the load is presently positioned and where it will be positioned after the lifting operation;
- d. How often the lifting equipment will be used to carry out the task;
- e. The environment in which the lifting equipment will be used; and
- f. The personnel available and their knowledge, training and experience.

Planning of individual lifting operations

This is to ensure the lifting operation is carried out safely with the lifting equipment selected during the initial planning. For routine lifting operations the planning of each individual lifting operation will usually be a matter for the people using the lifting equipment. This plan may only be required once but should be reviewed occasionally to make sure that nothing has changed. When the lifting operation is more complex, for example using two or more items of lifting equipment simultaneously to lift a non-guided load, a written plan should be drawn and applied to ensure there is adequate and effective coordination between the respective operators of the equipment.

Carrying out lifting operations in a safe manner

The plan should ensure that all reasonable measures have been taken to ensure adequate and effective procedures and safety measures are established to secure the safety of persons during lifting operations, in particular—that the lifting operation cannot -

- a. Affect the stability of the ship.
This is particularly important where cranes are being used on small vessels as overloading the crane, or attempting to lift at the wrong angle could, in some circumstances, result in the vessel sinking.
- b. Affect the stability of the lifting appliance.
If the equipment is mobile or can be dismantled the lifting operation shall not be started until the operator is satisfied that the lifting equipment will remain stable during use. This shall be under all foreseeable conditions, taking account of the nature of the surface on which it stands.
- c. Cause a collision when using two or more items of lifting equipment.
The equipment should be positioned or installed so that their operating paths do not overlap.
- d. Strike and injure someone.
Barriers or some other method should be used to ensure no-one is close enough for this to happen. The task should also be organised in such a way that when a seafarer is attaching or detaching a load by hand, the operation can be carried out safely, in particular through the seafarer retaining direct or indirect control of the work equipment.
- e. Allow the load to drift dangerously or fall freely.
Drifting of loads can be caused by a variety of reasons such as weather conditions, lack of control by the persons engaged in the lifting operation or failure of equipment.
- f. Have a load suspended over a person.
There may be occasions where this is not practicable and in this case a safe system of work should be established which minimises the risks to persons who may need to be below the load.
- g. Release the load unintentionally.
Various methods can be used to minimise the risk from the load falling out of control including -
 - i. Regular checking of lifting and release equipment to ensure it is operating correctly, and that when in use it is within its safe working load limits;
 - ii. Multiple ropes/chains;
 - iii. Lifting mechanisms with a high factor of safety or strength;
 - iv. Use of safety gear;
 - v. Installation and correct operation of check valves for hydraulic systems;

- vi. Safety nets for palletised loads;
 - vii. Hooks should be fitted with a safety catch or shaped or secured to prevent any accidental release; and,
 - viii. Pneumatic, hydraulic, vacuum or magnetic equipment may require a back-up power supply to take over in the event of a complete or partial power failure. If this is not possible all persons working on the equipment or in its vicinity should be warned of the potential danger should a power failure occur.
- h. Weather conditions
- Weather conditions can play a significant part in the carrying out of lifting operations either in the open air or within the vessel. In the former case high winds or wave action can cause suspended loads to swing dangerously or cause mobile equipment to topple. Movement of the ship due to wind or wave action can also have a similar effect in relation to lifting operations inside the ship. Consideration should be given to the effects of weather conditions on all lifting operations both inside the ship or outside on deck, and such operations should be suspended before conditions deteriorate to the extent that lifting becomes dangerous.
- i. Visibility
- If the operator of the lifting equipment cannot observe the full path of the load, either directly or by means of auxiliary devices, it should be ensured that a responsible person is used as a signaller. The signaller shall have appropriate means of communication to guide the operator which may be by using hand signals, or radios. Where hand signals are used they should be consistent with the Coded signals as used in EU Directive 92/58/EEC. The coded signals can be found in-
- MCA Code of Safe Working Practices Annex 21.1 Coded signs to be used

Alternatively different types of auxiliary devices can be used to indicate the position of the load to the operator. This includes close circuit television systems and visual markers which can either be used on the lifting equipment or on the ground.

Lifting equipment for lifting persons

It must be ensured that lifting equipment which is designed for the lifting of persons is not used for that purpose unless it is so constructed, maintained and operated that a seafarer may use it or carry out work activities from the carrier without risk to their health and safety, and in particular-

1. The person will not be crushed, trapped or struck, in particular through inadvertent contact with objects;
2. That the lifting equipment is so designed or has suitable devices-
 - i. To prevent any carrier falling or, if that cannot be prevented for reasons inherent in the site and height differences, the carrier has an enhanced safety co-efficient suspension rope or chain, this shall be checked by a competent person prior to use.
 - ii. To prevent the risk of any person falling from the carrier, and
3. That any person trapped in the carrier in the event of an incident is not thereby exposed to danger and can be freed.

Lifting persons in exceptional circumstances

If in exceptional circumstances it is necessary to use lifting equipment, which has not been specifically designed for the purpose to lift persons, it must be ensured that –

- The control position of the lifting equipment is manned at all times; and
- Persons being lifted have a reliable means of communication, whether direct or indirect, with the operator of the lifting equipment.
- If in the event of failure of the lifting equipment the persons being lifted must not be exposed to danger and a reliable means of rescue shall be available.

Transfer of personnel by 'personnel baskets'

Guidance on the transfer of personnel by personnel baskets can found in;

- MCA Code of Safe Working Practices for Merchant Seaman Chapter 31.6 Transfer of personnel by ship to installation by 'personnel baskets'
- Health and Safety Executive Safety notice (SN10/80) Guidance on Procedures for the Transfer of Personnel by Basket.

Further Information

Further Guidance on lifting appliances can be found in the MCA Code of Safe Working Practice:-

- Chapter 21.14 Use of winches and cranes
- Chapter 21.15 Use of derricks
- Chapter 21.16 Use of derricks in union purchase
- Chapter 21.17 Use of stoppers
- Chapter 21.18 Overhaul of cargo gear
- Chapter 21.19 Trucks and other vehicles/appliances
- Chapter 21.20 Defect reporting and testing – Advice to competent person
- Chapter 21.21 Personnel Lifting Equipment, Lifts and Lift Machinery Personnel lifting Equipment

Lifting Equipment – Thorough Examinations and Testing Requirements

Requirement	Competent Person	Witnessed
Lifting equipment to be inspected regularly at intervals determined by the frequency of use and extremes of operating conditions of the equipment.	X	
Lifting equipment for <u>lifting persons</u> - ropes or chains to be inspected every day.	X*	
Lifting equipment or lifting accessory for <u>lifting persons</u> to be thoroughly examined every 6 months.	X	
Lifting equipment or an accessory for lifting to be thoroughly examined every 12 months.	X	
Testing of lifting equipment, accessory for lifting or loose gear <ul style="list-style-type: none"> • after manufacture or installation, or • repair or modification which is likely to alter the SWL or affect the strength or stability of the equipment, or • within the preceding 5 years. 	X	X
After any testing of lifting equipment, accessory for lifting or item of loose gear a thorough examination shall be carried out, and certified for use by the person carrying out the tests.	X	

Competent Person

A person who is trained and has the necessary skills, practical experience and knowledge of the type of lifting equipment which they are required to inspect. In addition the manufacturers recommended service instructions and maintenance procedures shall be available. If this person is a member of the vessel's crew it may be the Master, Chief Engineer, Chief Officer or Second Engineer subject to the above criteria.

*Competent Person**

In this circumstance may be a member of the ships crew who operates the lifting equipment and has been instructed in inspections of lifting appliances.

Thorough Examination

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 lifting equipment or accessory for lifting examined. In addition it is recommended, following any overload test or dismantling of gear that a function test with a nominal load is also carried out before any lifting equipment is put into service. Examinations should look for general material defects such as cracks, distortion, metal fatigue, corrosion and wear and tear that could affect the safe working load and overall strength.

Examination Scheme

The shipowner should devise a documented system/procedure to ensure that all parts of lifting equipment exposed to conditions that will cause deterioration are properly examined, at the required intervals.

Inspection

A visual inspection by a competent person to establish that no defects or deterioration is present in the equipment and that it remains safe to use.

Testing

Any testing should be carried out in accordance with an appropriate lifting code or manufacturer's instructions.

SECTION 2

Hatches & Hold Access

The shipowner and every person carrying out the obligations stated in the requirements for Hatches and Hold Access in the Isle of Man regulations shall comply with the principles and guidance stated in the following publication –

- MCA Code of Safe Working Practice Chapter 26 Hatch Covers and Hold Access

2.1 Hatches

The requirements of the Hatches regulations are:

1. The shipowner shall ensure -
 - a. That any hatch covering used on a ship is -
 - i. Of sound construction and material;
 - ii. Of adequate strength for the purpose for which it is used;
 - iii. Free from defect; and
 - iv. Properly maintained.
 - b. Information showing the correct replacement position is clearly marked, except when hatch covering are interchangeable or incapable of being incorrectly replaced.
 - c. A hatch is not used unless the hatch covering has been completely removed, or if not completely removed, is properly secured.
2. Except in an emergency a person shall not operate the ships -
 - a. Ramp;
 - b. Retractable car-deck; or,
 - c. A hatch covering which is power operated.

Unless authorised to do so by a responsible ship's officer.

It is for the shipowner to decide who the responsible ship's officer shall be and to ensure they have received training and instruction appropriate to the task, and are competent to oversee the operation.

2.2 Hold Access

The current hold access regulations only apply to vessels where the keel of the ship was laid, or at a similar stage of construction, after 1st July 1989. Where this is the case the following standards for hold access shall apply –

1. The access shall be separate from the hatchway opening;
2. Neither a fixed ladder, nor a line of fixed rungs, shall form a reverse slope at any point;
3. The rungs of a fixed ladder shall be at least 300mm wide, and so shaped or arranged that a person's foot cannot slip off the ends. Rungs shall be evenly spaced at intervals of not more than 300mm and there shall be at least 150mm clear space behind each rung;
4. There shall be at least 75mm space outside the stiles to allow a person to grip them;
5. There shall be a space at least 760mm wide for the user's body, except that at a hatchway this space may be reduced to a clear space of at least 660mm by 600mm;
6. Fixed vertical ladders shall be provided with safe intermediate landing platforms in accordance with the following –
 - a. At intervals of not more than 9 metres; and
 - b. Where vertical ladders are not in a direct line.

SECTION 3

Means of Access

The Means of Access regulations apply to all MLC compliant vessels, except for Commercial Yachts. Commercial Yachts must comply with the equivalent requirements in the Large Commercial Yacht Code (LY1 or LY2 depending on the vessel).

3.1 The principle aim of the Means of Access regulations is for the shipowner and master to ensure there is a safe means of access for all persons boarding or leaving the ship.

In fulfilling this general requirement the access equipment is required to be -

- Placed in position promptly after the ship has been secured;
- Kept in position while the ship is secured;
- Properly rigged, secured, deployed, and safe to use;
- Periodically adjusted to maintain safety of access;
- Adequately illuminated this shall include the immediate approaches to the access equipment;
- Of good construction, of sound material, and of adequate strength, free from defect and properly maintained (this includes any safety nets);
- Provided in a safe manner, when access is necessary between ship and shore, and the ship is not secured alongside.

The shipowner and the master shall take full account of the principles of good safe working practices as stated in –

- MCA Code of Safe Working Practice, Chapter 18 Boarding Arrangements

There is also a requirement on all persons boarding or leaving the ship to use the access equipment provided except in emergencies.

3.2 Limited Variations

The Ship Registry may approve limited variations to the requirements of the Means of Access regulations. Any limited variations has to be requested in writing to the Ship Registry, and must comply with the MLC Standard of reasonable precautions to prevent occupational accidents, injuries and diseases on board ship.

3.3 Life-buoys

The shipowner and the master have to ensure that the following is provided ready for use at the point of access on board the ship –

- A life-buoy with a self activation light;
- A separate safety line attached to a quoit or some similar device.

3.4 Safety nets

The shipowner has to ensure that an adequate number of safety nets are carried on the ship. When the access equipment is used, if there is any risk of a person falling from the equipment or from the ship or quayside immediately adjacent to the equipment, the master has to ensure that a safety net is rigged.

3.5 Requirement and Construction of Access Equipment

3.5.1 Gangways

A gangway is required on every ship of 30 metres or more registered length. The gangway has to be appropriate to the deck layout, size, shape and maximum freeboard of the ship.

The gangway shall also -

- Comply with the specifications set out in standard 'BS MA 78:1978, Specification for aluminium shore gangways' or an equivalent internationally recognised standard;
- Be clearly marked with the manufacturer's name, the model number, maximum designed angle of use and the maximum safe loading both by number of person and by total weight;
- Be fitted with suitable fencing along its entire length.

3.5.2 Accommodation ladders

An accommodation ladder is required on every ship of 120 metres or more in registered length and shall be appropriate to the deck layout, size shape and maximum freeboard of the ship.

Accommodation ladders shall –

- Comply with the specifications set out in standard 'BS MA 89:1980 Specification for accommodation ladders,' or be of an equivalent internationally recognised standard.
- Be clearly marked with the manufacturer's name, the model number, the maximum designed angle of use and the maximum safe loading both by number of person and by total weight.

The ladder has to be designed so that -

1. It rests firmly against the side of the ship;
2. The angle of slope is no more than 55 degrees. Treads and steps should provide a safe foothold at the angle at which the ladder is used;

3. It is fitted with suitable fencing (preferably rigid handrails) along its entire length, except that fencing at the bottom platform may allow access from the outboard side;
4. The bottom platform is horizontal, and any intermediate platforms are self-levelling.

3.5.3 Rope ladders

The shipowner and the master have to ensure that a rope ladder is only used where no safer means of access is reasonably practicable.

Rope ladders must comply with the specifications set out in 'BS 1129:1990 Specification for portable timber ladders' or be of an equivalent internationally recognised standard.

Rope ladders also have to meet the following requirements -

1. Be of adequate width and length and so constructed that it can be efficiently secured to the ship;
2. The steps must provide a slip-resistant foothold of not less than 400mm x 115mm x 25mm and must be so secured that they are firmly held against twist, turnover or tilt;
3. The steps must be horizontal and equally spaced at intervals of 310mm (+ or - 5mm);
4. The side ropes, which should be a minimum of 18mm in diameter, should be equally spaced;
5. There should be no shackles, knots or splices between rungs;
6. Ladders of more than 1.5 metres in length must be fitted with spreaders not less than 1.8 metres long. The lowest spreader must be on the fifth step from the bottom and the interval between spreaders must not exceed nine steps. The spreaders should not be lashed between steps.

3.5.4 Portable ladders

The shipowner and the master have to ensure that a portable ladder is only used where no safer means of access is reasonably practicable.

Aluminium ladders

Must comply with the specifications for aluminium ladders as set out in 'BS 2037:1994 Specification for portable aluminium ladders, steps, trestles and lightweight staging,' or be of an equivalent internationally recognised standard.

Bulwark ladders

Must comply with the specifications set out in the Shipbuilding Industry Standard No SIS 7, or BS MA 39: Part 2 Ships' ladders (steel sloping), or be of an equivalent internationally

recognised standard. Adequate fittings must be provided to enable the bulwark ladder to be properly and safety secured.

3.5.5 Pilot ladders

The requirements for pilot ladders and mechanical pilot hoists shall meet the requirements as stated in SOLAS Chapter V.

SECTION 4

Guarding of Work Equipment and Safety of Electrical Equipment

Work equipment includes any machinery, appliance, apparatus, tool or installation for use at work.

4.1 Guarding dangerous machinery

All dangerous parts of any work equipment such as gearing, belt drives, shafts and couplings are required to have guards and protection devices. This is to prevent any person, or anything worn by that person, from being caught and injured in any moving machinery. Alternatively a means has to be available of halting the movement of any dangerous parts before a person can enter a hazardous area within or around the work equipment (known as danger zone in the regulations).

The shipowner shall ensure that all guards and protection devices provided -

1. Are of substantial construction and properly maintained;
2. Are kept in position whilst the parts to be guarded are in motion (subject to the conditions stated above);
3. Do not give rise to any additional hazard;
4. Are not easily removed, by-passed or disabled;
5. Do not restrict the view of the operating cycle of the equipment more than is necessary; and,
6. Are so constructed or adapted that they allow operations necessary to fit or replace parts and for maintenance work, restricting access so that it is allowed only to the area where the work is to be carried out and, if possible, without having to dismantle the guard or protection device.

If it is necessary to remove the guards or protection device for any maintenance work, or in order to carry out a test, a suitable risk assessment should be completed prior to the task being carried out.

4.2 Stop controls

Where appropriate, all work equipment shall be provided with at least one readily accessible control which brings the work equipment to a safe condition in a safe manner. This includes stopping the equipment and switching off all sources of energy to and from the equipment, in priority to any control which starts or changes the operating conditions of the work equipment.

4.3 Emergency Stop

Where appropriate work equipment shall be provided with at least one readily accessible emergency stop control. This shall operate in priority to the stop control described above.

4.4 Electrical Equipment

All of a ship's electrical equipment and installations shall be constructed, installed operated and maintained so that the ship and all persons are protected against electrical hazards.

ANNEX 4

Reporting of Occupational Accidents, Injuries and Diseases

All Isle of Man registered vessels are required to report Casualties, Accidents, Injuries and Diseases to the Ship Registry. This is in order for the Ship Registry to analyse the reports and then decide whether or not a more comprehensive investigation is required to be carried out.

All accident reports are confidential to the Ship Registry and the information including seafarers' personal data will not be released to other parties. The data from the accident reports are used for statistical analysis and trends which are displayed in the; 'Summary report of Casualties, Accidents and Incidents on Isle of Man registered vessels'. This report is available on the Ship Registry website.

The shipowner and master are also required to ensure that the circumstances of every casualty, accident, and incident are examined, as far as practical. In most cases the submission of the accident report form will satisfy this requirement. In certain cases the Ship Registry may request further information on the findings of the examination. This may include details of any measures taken or proposed to be taken in order to prevent a recurrence.

Format for the Reports

The reporting form for Incidents, Accidents and Casualties required to be used on Isle of Man registered vessels is the Accident Report Form (ARF/1). This form is available on the Ship Registries website – www.iomshipregistry.com

A Shipowner can use their company Accident Report Form but this form has to be approved by the Ship Registry. A copy of the company form can be emailed to marine.survey@gov.im for approval.

Reporting of casualties

When a casualty occurs the master or the shipowner are required to notify the Ship Registry as soon as possible, and then the master shall send a report as soon as practicable and by the quickest means available. In general the quickest means possible is by sending a form by fax or email containing the basic details so the Ship Registry is aware that a casualty has occurred. This can then be followed up by forwarding the Accident Report Form as soon as it is completed. In the case when the ship is lost or abandoned, the report shall be sent by the shipowner or the master, or a senior surviving officer as soon as practicable.

Casualties are an event, or a sequence of events that have resulted in any of the following –

- The death of, or the serious injury to, a person;
- The loss of a person from a ship;
- The loss, presumed loss or abandonment of a ship;

- Material damage to a ship;
- The stranding or disabling of a ship, or the involvement of a ship in a collision;
- Material damage to marine infrastructure external to a ship, that could seriously endanger the safety of the ship, another ship or an individual; or
- Severe damage to the environment, or the potential for severe damage to the environment, brought about by the damage of a ship or ships.

Material damage in relation to a casualty means:

1. Damage that -
 - a. Significantly affects the structural integrity, performance or operational characteristics of marine infrastructure or a ship; and
 - b. Requires major repair or replacement of a major component or components or;
2. Destruction of the marine infrastructure or ship.

Serious Injury is an injury which results in the person being incapacitated and unable to function normally for more than 72 hours. This commences within seven days from the date when the injury was suffered.

Severe damage to the environment is damage to the environment which, as evaluated by the State(s) affected, or the flag state, as appropriate, produces a major deleterious effect upon the environment.

Reporting of accidents

When any accident occurs the master or the shipowner has to notify the Ship Registry no later than 24 hours of the vessel's next arrival in port. An accident is defined as any of the following occurrences which resulted in damage to the ship or structure, or damage to the health of any person –

- The fall of any person overboard;
- Any fire or explosion;
- The collapse or bursting of any pressure vessel, pipeline or valve or the accidental ignition of anything in a pipeline;
- The collapse or failure of any lifting equipment, access equipment, hatchcover, staging or bosun's chair or any associated load-bearing parts;
- The uncontrolled release or escape of any harmful substance or agent;
- Any collapse of cargo, unintended movement of cargo sufficient to cause a list, or loss of cargo overboard;

- Any contact by a person with loose asbestos fibre except when full protective clothing is worn.

Reporting of incidents

When any incident occurs the master or the shipowner is required to report the incident to the Ship Registry before the vessel departs from the next port.

Incidents are the least serious type of events and are also known as 'near misses' or events which could have led to accidents or casualties.

The definition of incident is an event, or sequence of events, other than a casualty or accident, which has occurred directly in connection with the operations of a ship that endangered, or, if not corrected, would endanger the safety of the ship, its occupants or any other person or the environment.

Reporting of occupational diseases

MLC has a requirement for the Shipowner to report occupational diseases to the Ship Registry. This will be required under the following circumstances –

- The seafarer is diagnosed with the occupational disease while serving on an Isle of Man registered vessel;
- The occupational disease is one specified in column 1 of Schedule 2;
- The seafarer's work involves an activity specified in the corresponding entry in column 1 of Schedule 2;
- The shipowner has received a written statement prepared by a registered medical practitioner who has diagnosed the disease.

All occupational diseases shall be recorded on the 'Report of a Case of Disease' form which will be available on the Ship Registry website when MLC has been ratified, an example of the proposed form is shown in Schedule 1.

Schedule 1 Proposed Occupational Disease Reporting Form

REPORT OF A CASE OF OCCUPATIONAL DISEASE

For IOM Registered Vessels Only

This form must be completed by an employer or other responsible person



Part A	Part B
About you	About the affected person
What is your full name?	What is their full name?
<input type="text"/>	<input type="text"/>
What is your job title?	What is their date of birth?
<input type="text"/>	<input type="text"/>
What are your contact details?	What is their job title?
Tel:	<input type="text"/>
Fax:	Are they
Email:	<input type="checkbox"/> Male?
<input type="text"/>	<input type="checkbox"/> Female?
<input type="text"/>	Is the affected person (tick one box)
<input type="text"/>	<input type="checkbox"/> one of your employees?
About your organisation	<input type="checkbox"/> on a training scheme? Give details:
What is the name of your organisation?	<input type="text"/>
<input type="text"/>	<input type="checkbox"/> on work experience?
What is its address and postcode?	<input type="checkbox"/> Employed by someone else?
<input type="text"/>	Give details:
What is the name of the vessel?	<input type="text"/>
<input type="text"/>	<input type="checkbox"/> Other? Give details:
What type of vessel is it?	<input type="text"/>
<input type="text"/>	
Where does it operate to and from?	
<input type="text"/>	

Part C

The disease you are reporting

Please give:

- The name of the disease, and the type of work it is associated with; **or**
- The name and number of the disease (See IOM Shipping Notice)

What is the date of the statement of the doctor who first diagnosed or confirmed the disease?

What is the name and address of the doctor?

Part D

Describing the work that led to the disease

Please describe any work done by the affected person which might have led to them getting the disease.

If the disease is thought to have been caused by exposure to an agent at work (e.g. a specified chemical) please state what the agent is.

Give any other information which is relevant.

Continue your description here if necessary

Part E

Your signature

Signature

Date

If returning by post or fax, please ensure that the form is signed. Alternatively, if returning by E-mail please type your name in the signature box.

Send the completed form to:

E-mail marine.survey@gov.im

Fax +44(0)1624 688501

Mail address: Isle of Man Ship Registry
Department of Economic Development
St Georges Court,
Upper Church Street,
Douglas,
Isle of Man,
British Isles
IM1 1EX

For official use

Ref No.

Entered by:

Schedule 2 OCCUPATIONAL DISEASES

Column 1

Column 2

Diseases

Activities

Conditions due to physical agents and the physical demands of work

<p>1. Inflammation, ulceration or malignant disease of the skin due to ionising radiation.A</p>	<p>} Work with ionising radiation.</p>
<p>2. Malignant disease of the bones due to ionising radiation.</p>	
<p>3. Blood dyscrasia due to ionising radiation.</p>	
<p>4. Cataract due to electromagnetic radiation.</p>	<p>Work involving exposure to electromagnetic radiation (including radiant heat).</p>
<p>5. Decompression illness.</p>	<p>} Work involving breathing gases at increased pressure (including diving).</p>
<p>6. Barotrauma resulting in lung or other organ damage.</p>	
<p>7. Dysbaric osteonecrosis.</p>	
<p>8. Cramp of the hand or forearm due to repetitive movements.</p>	<p>Work involving prolonged periods of handwriting, typing or other repetitive movements of the fingers, hand or arm.</p>
<p>9. Subcutaneous cellulitis of the hand (<i>beat hand</i>).</p>	<p>Physically demanding work causing severe or prolonged friction or pressure on the hand.</p>
<p>10. Bursitis or subcutaneous cellulitis arising at or about the knee due to severe or prolonged external friction or pressure at or about the knee (<i>beat knee</i>).</p>	<p>Physically demanding work causing severe or prolonged friction or pressure at or about the knee.</p>
<p>11. Bursitis or subcutaneous cellulitis arising at or about the elbow due to severe or prolonged external friction or pressure at or about the elbow (<i>beat elbow</i>).</p>	<p>Physically demanding work causing severe or prolonged friction or pressure at or about the elbow.</p>
<p>12. Traumatic inflammation of the tendons of the hand or forearm or of the associated tendon sheaths.</p>	<p>Physically demanding work, frequent or repeated movements, constrained postures or extremes of extension or flexion of the hand or wrist.</p>
<p>13. Carpal tunnel syndrome.</p>	<p>Work involving the use of hand-held vibrating tools.</p>
<p>14. Hand-arm vibration syndrome.</p>	<p>Work involving: (a) the use of chain saws, brush cutters or hand-held or hand-fed circular saws in forestry or woodworking; (b) the use of hand-held rotary tools in grinding material or in sanding or polishing metal; (c) the holding of material being ground or metal being sanded or polished by rotary tools; (d) the use of hand-held percussive metal-working tools or the holding of</p>

Column 1**Column 2****Diseases****Activities**

metal being worked upon by percussive tools in connection with riveting, caulking, chipping, hammering, fettling or swaging;

(e)

the use of hand-held powered percussive drills or hand-held powered percussive hammers in mining, quarrying or demolition, or on roads or footpaths (including road construction); or

(f)

the holding of material being worked upon by pounding machines in shoe manufacture.

Infections due to biological agents

15. Anthrax.	(a) Work involving handling infected animals, their products or packaging containing infected material; or (b) work on infected sites.	
16. Brucellosis.	Work involving contact with: (a) animals or their carcasses (including any parts thereof) infected by brucella or the untreated products of same; or (b) laboratory specimens or vaccines of or containing brucella.	
17.—(a) Avian chlamydiosis.	Work involving contact with birds infected with chlamydia psittaci, or the remains or untreated products of such birds.	
(b) Ovine chlamydiosis.	Work involving contact with sheep infected with chlamydia psittaci or the remains or untreated products of such sheep.	
18. Hepatitis.	Work involving contact with: (a) human blood or human blood products; or (b) any source of viral hepatitis.	
19. Legionellosis.	Work on or near cooling systems which are located in the workplace and use water; or work on hot water service systems located in the workplace which are likely to be a source of contamination.	
20. Leptospirosis.	(a) Work in places which are or are liable to be infested by rats, fieldmice, voles or other small mammals; (b) work at dog kennels or involving the care or handling of dogs; or (c) work involving contact with bovine animals or their meat products or pigs or their meat products.	
21. Lyme disease.	Work involving exposure to ticks (including in particular work by forestry workers, rangers, dairy farmers, game keepers and other persons engaged in countryside management).	
22. Q fever	Work involving contact with animals, their remains or their untreated products.	
23. Rabies.	Work involving handling or contact with infected animals.	
24. Streptococcus suis.	Work involving contact with pigs infected with streptococcus suis, or with the carcasses, products or residues of pigs so affected.	
25. Tetanus.	Work involving contact with soil likely to be contaminated by animals.	
26.	Tuberculosis.	Work with persons, animals, human or animal remains or any other material which might be a source of infection.
27. Any infection reliably attributable to the performance of the work specified	Work with micro-organisms; work with live or dead human beings in the course of providing any treatment or service or in conducting any	

Column 1

Column 2

Diseases

Activities

in the entry opposite hereto.

investigation involving exposure to blood or body fluids; work with animals or any potentially infected material derived from any of the above.

Conditions due to substances

28. Poisonings by any of the following:

- (a)acrylamide monomer;
- (b)arsenic or one of its compounds;
- (c)benzene or a homologue of benzene;
- (d)beryllium or one of its compounds;
- (e)cadmium or one of its compounds;
- (f)carbon disulphide;
- (g)diethylene dioxide (dioxan);
- (h)ethylene oxide;
- (i)lead or one of its compounds;
- (j)manganese or one of its compounds;
- (k)mercury or one of its compounds;
- (l)methyl bromide;
- (m)nitrochlorobenzene, or a nitro or amino chloro-derivative of benzene or of a homologue of benzene;
- (n)oxides of nitrogen;
- (o)phosphorus or one of its compounds.

Any activity

29. Cancer of a bronchus or lung.

(a)Work in or about a building where nickel is produced by decomposition of a gaseous nickel compound or where any industrial process which is ancillary or incidental to that process is carried on; or (b)work involving exposure to bis(chloromethyl) ether or any electrolytic chromium processes (excluding passivation) which involve hexavalent chromium compounds, chromate production or zinc chromate pigment manufacture.

30. Primary carcinoma of the lung where there is accompanying evidence of silicosis.

Any occupation in:

- (a) glass manufacture;
- (b) sandstone tunnelling or quarrying;
- (c) the pottery industry;
- (d) metal ore mining;
- (e) slate quarrying or slate production;
- (f) clay mining;
- (g) the use of siliceous materials as abrasives;
- (h) foundry work;
- (i) granite tunnelling or quarrying; or
- (j) stone cutting or masonry.

31. Cancer of the urinary tract.

1. Work involving exposure to any of the following substances:
(a)beta-naphthylamine or methylene-bis-orthochloroaniline;
(b)diphenyl substituted by at least one nitro or primary amino group or by at least one nitro and primary amino group (including benzidine);
(c)any of the substances mentioned in sub-paragraph (b) above if further ring substituted by halogeno, methyl or methoxy groups, but not by other groups; or
(d)the salts of any of the substances mentioned in sub-paragraphs (a) to (c) above.

2. The manufacture of auramine or magenta.

32. Bladder cancer.

Work involving exposure to aluminium smelting using the Soderberg process.

33. Angiosarcoma of the liver.

(a)Work in or about machinery or apparatus used for the polymerisation of vinyl chloride monomer, a process which, for the purposes of this sub-

Column 1**Column 2****Diseases****Activities**

		paragraph, comprises all operations up to and including the drying of the slurry produced by the polymerisation and the packaging of the dried product; or (b)work in a building or structure in which any part of the process referred to in the foregoing sub-paragraph takes place.
34. Peripheral neuropathy.		Work involving the use or handling of or exposure to the fumes of or vapour containing n-hexane or methyl n-butyl ketone.
35. Chrome ulceration of: (a)the nose or throat; or (b)the skin of the hands or forearm.		Work involving exposure to chromic acid or to any other chromium compound.
36. Folliculitis.		Work involving exposure to mineral oil, tar, pitch or arsenic.
37. Acne.		
38. Skin cancer.		
39. Pneumoconiosis (excluding asbestosis).	(excluding	<p>1.—(a) The mining, quarrying or working of silica rock or the working of dried quartzose sand, any dry deposit or residue of silica or any dry admixture containing such materials (including any activity in which any of the aforesaid operations are carried out incidentally to the mining or quarrying of other minerals or to the manufacture of articles containing crushed or ground silica rock); or (b)the handling of any of the materials specified in the foregoing sub-paragraph in or incidentally to any of the operations mentioned therein or substantial exposure to the dust arising from such operations.</p> <p>2. The breaking, crushing or grinding of flint, the working or handling of broken, crushed or ground flint or materials containing such flint or substantial exposure to the dust arising from any of such operations.</p> <p>3. Sand blasting by means of compressed air with the use of quartzose sand or crushed silica rock or flint or substantial exposure to the dust arising from such sand blasting.</p> <p>4. Work in a foundry or the performance of, or substantial exposure to the dust arising from, any of the following operations: (a)the freeing of steel castings from adherent siliceous substance or; (b)the freeing of metal castings from adherent siliceous substance: (i)by blasting with an abrasive propelled by compressed air, steam or a wheel, or (ii)by the use of power-driven tools.</p> <p>5. The manufacture of china or earthenware (including sanitary earthenware, electrical earthenware and earthenware tiles) and any activity involving substantial exposure to the dust arising therefrom.</p> <p>6. The grinding of mineral graphite or substantial exposure to the dust arising from such grinding.</p> <p>7. The dressing of granite or any igneous rock by masons, the crushing of such materials or substantial exposure to the dust arising from such operations.</p> <p>8. The use or preparation for use of an abrasive wheel or substantial exposure to the dust arising therefrom.</p> <p>9.—(a) Work underground in any mine in which one of the objects of the mining operations is the getting of any material; (b)the working or handling above ground at any coal or tin mine of any materials extracted therefrom or any operation incidental thereto; (c)the trimming of coal in any ship, barge, lighter, dock or harbour or at any wharf or quay; or (d)the sawing, splitting or dressing of slate or any operation incidental thereto.</p> <p>10. The manufacture or work incidental to the manufacture of carbon electrodes by an industrial undertaking for use in the electrolytic extraction of aluminium from aluminium oxide and any activity involving substantial exposure to the dust therefrom.</p> <p>11. Boiler scaling or substantial exposure to the dust arising therefrom.</p>
40. Byssinosis.		The spinning or manipulation of raw or waste cotton or flax or the weaving of cotton or flax, carried out in each case in a room in a factory, together with any other work carried out in such a room.
41. Mesothelioma.		(a)The working or handling of asbestos or any admixture of asbestos; (b)the manufacture or repair of asbestos textiles or other articles containing or composed of asbestos:
42. Lung cancer.		

Column 1**Column 2****Diseases****Activities**

43. Asbestosis.	(c)the cleaning of any machinery or plant used in any of the foregoing operations and of any chambers, fixtures and appliances for the collection of asbestos dust; or (d)substantial exposure to the dust arising from any of the foregoing operations.
44. Cancer of the nasal cavity or associated air sinuses.	1.—(a) Work in or about a building where wooden furniture is manufactured; (b)work in a building used for the manufacture of footwear or components of footwear made wholly or partly of leather or fibre board; or (c)work at a place used wholly or mainly for the repair of footwear made wholly or partly of leather or fibre board. 2. Work in or about a factory building where nickel is produced by decomposition of a gaseous nickel compound or in any process which is ancillary or incidental thereto.
45. Occupational dermatitis.	Work involving exposure to any of the following agents: (a) epoxy resin systems; (b) formaldehyde and its resins; (c) metalworking fluids; (d) chromate (hexavalent and derived from trivalent chromium); (e) cement, plaster or concrete; (f) acrylates and methacrylates; (g) colophony (rosin) and its modified products; (h) glutaraldehyde; (i) mercaptobenzothiazole, thiurams, substituted paraphenylene-diamines and related rubber processing chemicals; (j) biocides, anti-bacterials, preservatives or disinfectants; (k) organic solvents; (l) antibiotics and other pharmaceuticals and therapeutic agents; (m) strong acids, strong alkalis, strong solutions (e.g. brine) and oxidising agents including domestic bleach or reducing agents; (n) hairdressing products including in particular dyes, shampoos, bleaches and permanent waving solutions; (o) soaps and detergents; (p) plants and plant-derived material including in particular the daffodil, tulip and chrysanthemum families, the parsley family (carrots, parsnips, parsley and celery), garlic and onion, hardwoods and the pine family; (q) fish, shell-fish or meat; (r) sugar or flour; or (s) any other known irritant or sensitising agent including in particular any chemical bearing the warning "may cause sensitisation by skin contact" or "irritating to the skin".
46. Extrinsic alveolitis (including farmer's lung).	Exposure to moulds, fungal spores or heterologous proteins during work in: (a) agriculture, horticulture, forestry, cultivation of edible fungi or malt-working; (b)

Column 1**Diseases**

47. Occupational asthma.

Column 2**Activities**

loading, unloading or handling mouldy vegetable matter or edible fungi whilst same is being stored;

(c)

caring for or handling birds; or

(d)

handling baqasse.

Work involving exposure to any of the following agents:

(a)

isocyanates;

(b)

platinum salts;

(c)

fumes or dust arising from the manufacture, transport or use of hardening agents (including epoxy resin curing agents) based on phthalic anhydride, tetrachlorophthalic anhydride, trimellitic anhydride or triethylene-tetramine;

(d)

fumes arising from the use of rosin as a soldering flux;

(e)

proteolytic enzymes;

(f)

animals including insects and other arthropods used for the purposes of research or education or in laboratories;

(g)

dusts arising from the sowing, cultivation, harvesting, drying, handling, milling, transport or storage of barley, oats, rye, wheat or maize or the handling, milling, transport or storage of meal or flour made therefrom;

(h)

antibiotics;

(i)

cimetidine;

(j)

wood dust;

(k)

ispaghula;

(l)

castor bean dust;

(m)

ipecacuanha;

(n)

azodicarbonamide;

(o)

animals including insects and other arthropods (whether in their larval forms or not) used for the purposes of pest control or fruit cultivation or the larval forms of animals used for the purposes of research or education or in laboratories;

(p)

glutaraldehyde;

(q)

persulphate salts or henna;

(r)

crustaceans or fish or products arising from these in the food processing industry;

(s)

reactive dyes;

(t)

soya bean;

(u)

tea dust;

(v)

green coffee bean dust;

(w)

fumes from stainless steel welding;

(x)

any other sensitising agent, including in particular any chemical bearing the warning "may cause sensitisation by inhalation".

Annex 5 – Ship Masters Medical Report Form

SHIP MASTER'S MEDICAL REPORT FORM

(When completed, the contents of this form shall be kept confidential and shall only be used to facilitate the treatment of the patient)

Date of report

Ship's identity and navigation status

Vessel Name

IMO Number

Owner

Name & address of on-shore agent

Position (latitude, longitude) at onset of illness

Destination and ETA (expected time of arrival)

The patient and the medical problem

Surname and first name

Sex Male Female

Date of birth (dd/mm/yy)

Nationality

Seafarer registration number

Shipboard job title

Hour and date when taken off work

Hour and date when returned to work

Form MR001 09/05/11

 Isle of Man
Ship Registry

Injury or illness

Hour and date of injury or onset of illness

Hour and date of first examination or treatment

Location on ship where injury occurred

Circumstances of injury

Symptoms

Findings of physical examination

Findings of X-ray or laboratory tests

Overall clinical impression before treatment

Treatment given on board

Overall clinical impression after treatment

Telemedical consultation

Hour and date of initial contact

Mode of communication (radio, telephone, fax, other)

Surname and first name of telemedical consultant

Details of telemedical advice given

N.B. Attach all relevant medical reports to this form