



Maritime &  
Coastguard  
Agency

MERCHANT SHIPPING NOTICE

**MSN xxxx (M)**

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## **Maritime Labour Convention, 2006: Merchant Shipping (Maritime Labour Convention) (Minimum Age) Regulations**

## **Implementation of EC Directive 94/33/EC: The Merchant Shipping and Fishing Vessels (Health and Safety)(Employment of Young Persons) Regulations 1998**

**Notice to all shipowners, other seagoing vessel owners, operators, managers and employers of seafarers; masters, officers and seafarers**

*This notice should be read with the regulations above and with MGN 20(M+F). It replaces MGN 88 (M+F) for merchant ships and other seagoing ships operating commercially. For fishing vessels and vessels operating on inland waterways see MGN xxx*

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### **Summary**

This notice provides information about the minimum age for seafarers and the protection of young seafarers (under 18 years) working on board UK ships.

- The minimum age for working on a UK seagoing ship is 16 years of age
- Those under the age of 18 years must not be assigned work which is likely to jeopardise their health and safety, unless they are fully qualified in the relevant skills or are working under supervision
- The employer must carry out a risk assessment with regard to the particular risks to young persons
- Those under the age of 18 years may not work at night unless as part of recognised training.
- In this context, “night” means a period of at least nine hours including the hours between midnight and 5am
- The minimum hours of rest of seafarers under 18 years are specified.

Certain types of work should not be undertaken by young persons on the grounds that such work is likely to jeopardise their health and safety.

### **1. Introduction**



- 1.1 The Merchant Shipping (Maritime Labour Convention) (Minimum Age) Regulations 2013 (S.I. 2013/xxxx) (the “Minimum Age Regulations”) prohibit any person under the age of 16 years from working on a ship. This applies whether the seafarer is employed or self-employed. These Regulations come into force on DDMMYY.
- 1.2 The Merchant Shipping and Fishing Vessel (Health and Safety at Work) (Employment of Young Persons) Regulations 1998 (SI 1998/2411) (“the Young Persons Regulations”) implemented for the maritime sector EC Directive 94/33 EC on the protection of young people at work. The Young Persons Regulations, which are in force, prohibit young persons from undertaking certain types of work. The prohibited work is work which is likely to jeopardise their health and safety.
- 1.3 This MSN provides information to shipowners and employers on the types of work that are prohibited, and sets out mitigating measures for other types of work which are considered likely to jeopardise the health and safety of young persons – see paragraph 3.3. This information has been agreed following consultation with shipowners and seafarers’ representatives.
- 1.4 Together the Regulations bring the United Kingdom into full compliance with the Maritime Labour Convention 2006 in respect of protection for young persons at work.

## **Background**

- 2.1 The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 (the “General Duties” Regulations) require employers to assess the risks to their workers’ health and safety arising from the work being undertaken, and to introduce measures to remove those risks entirely or, where that was not possible, reduce those risks as far as was reasonably practicable.
- 2.2 Young workers are particularly at risk because of their general lack of awareness of risks, due to their immaturity and inexperience. The Young Persons Regulations supplement and expand the provisions of the General Duties regulations by setting out specific measures to be taken in respect of the particular risks to young persons at work. This Merchant Shipping Notice provides advice on employers’ responsibilities in relation to those workers and specifies the types of work which are regarded as potentially hazardous to young persons, jeopardising their health or safety, and which should not be undertaken by them. The Notice also advises on what mitigating measures should be in place to enable such work to be undertaken.
- 2.3 For the purpose of the Minimum Age Regulations and the Young Persons Regulations, a young person is someone aged between 16 and 18 years of age. Persons under 16 years of age are classified as children and are prohibited from working on sea-going ships.

## **3. Minimum Age – additional guidance**

- 3.1 No seafarer may be employed on a sea-going UK ship under the age of 16 years.
- 3.2 Work experience on a ship is considered by the Maritime and Coastguard Agency to constitute work and accordingly the same limits apply. However “work shadowing” where children observe but do not participate in any work on ships is permitted, subject to the risk assessments having been undertaken and appropriate safety measures put in place.
- 3.3 The age limit for working on fishing vessels and on ships which do not go to sea is governed by section 55 of the Merchant Shipping Act 1995. No-one may work on such vessels when under school leaving age.

3.4 Children (i.e. those under school leaving age) who work ashore but part of whose duties may require them to spend some time on board vessels (e.g. in a catering company, servicing vessels in a boatyard) may work in any inland waters (Category A to D) where permitted by local authority byelaws and within the constraints of the booklet "Guidance on the Employment of Children" published by the Department for Children, Schools and families: [www.education.gov.uk/publications/standard/publicationDetail/Page1/DCSF-00827-2009](http://www.education.gov.uk/publications/standard/publicationDetail/Page1/DCSF-00827-2009).

## 4. Duties of employers

### 4.1 Risk assessment

4.1.1 As with the General Duties regulations, the Young Persons Regulations place duties on the employer or, where the employer is not "in control of the matter" because he is not responsible for the operation of the ship, additionally on any person who is in control of the matter.

4.1.2 In carrying out the risk assessment required by regulation 7 of the General Duties regulations, the Young Persons Regulations require the employer to take particular account of the risks which might arise to young persons as a result of their inexperience, lack of awareness of risks, immaturity etc. In this context the Young Persons Regulations specify the following areas for particular attention:

- *the fitting out and layout of working areas;*
- *the nature, degree and duration of exposure to physical, biological and chemical agents;*
- *the form, range and use of work equipment and the way in which it is 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;*
- *risks from agents, processes and work listed in the schedule to the regulations.*

4.1.3 Annex 1 provides advice on the risks covered by the schedule and ways of avoiding or reducing them.

4.1.4 In the context of risk assessment, employers are required to ensure that no young persons are engaged in work specified below, as it is likely to jeopardise their health or safety. Such work is any work:

- which is beyond their physical or psychological capacity
- involving harmful exposure to agents which are toxic, carcinogenic, cause heritable genetic damage or harm to the unborn child, or which in any other way chronically affect human health
- involving harmful exposure to radiation
- involving the risk of accidents which it may be assumed cannot be recognised or avoided by young workers owing to their insufficient attention to safety or lack of experience or training
- involving a risk to health from
  - extreme cold;
  - extreme heat;
  - noise;
  - vibration;
  - optical radiation or;
  - electromagnetic fields.

4.1.5 Employers are also required to inform young persons of any risks to their health and safety identified in these areas. This is in addition to any information supplied under the General Duties regulations with regard to the general risk assessment for all workers.

4.1.6 It is for individual employers to decide whether the assessment of risks to young persons under these regulations is carried out as an integral part of the assessment process required by the General Duties regulations, or as a separate exercise. It might be helpful to consider developing generic risk assessments for the employment of young people. These will be pertinent where young people typically undertake a series of tasks or duties. A generic risk assessment would need to be revised to address additional work not covered by the original assessment or if an individual young person might face greater risks e.g. as a result of a medical condition.

4.1.7 Exceptions are allowed to the above restrictions and prohibition where the activity in question is indispensable for vocational training and is performed under the supervision of a competent person. This means, for example, that a trainee who is following a structured training programme and is working alongside an experienced person or under direct supervision, may, as a part of that training, carry out activities which fall within the criteria listed. This in no way detracts from the principle that the employer has a duty to ensure the health and safety of the young person at work at all times. Appropriate controls must be in place which reduces any risk to the minimum that is reasonably practicable.

4.1.8 The competent person appointed to assist the employer with health and safety under the General Duties regulations must under those regulations, be provided with any information relevant to that role. This should include being notified of any young persons employed on the ship and of any risks identified specifically in relation to them under regulation 5.

## **5. Hours of rest**

5.1 Regulation 6 stipulates minimum daily and weekly rest periods and rest breaks for young workers. This regulation does not apply to young workers on fishing vessels, since the fishing patterns followed by most vessels do not allow for pre-set working hours for the crew. The employer of young workers on a fishing vessel is nevertheless required to ensure that, where the provisions are not complied with, any young person concerned is provided with compensatory rest periods which are equivalent to those required by the provisions of the Regulation 6.

5.2 For vessels other than fishing vessels, the basic principle is that young persons should be provided with a minimum of 12 consecutive hours rest in every 24 hour period; and a rest period of at least 2 days in every week (see also paragraph 4.1) Where a young person's daily working time is more than four and half hours, they should be provided with a rest break of at least 30 minutes which should be consecutive if possible.

5.3 It is recognised that if applied rigidly, the minimum rest requirements could restrict the employment of young persons on board ship, since they cannot be fitted into the operating schedules of many ships. There is therefore provision for the daily and weekly rest periods to be interrupted where periods of work are split up over the day or of short duration; and for the 2 day weekly rest period to be reduced to no less than 36 hours where this is justified by technical or organisational reasons.

5.4 In addition, derogations are built into the regulations where the young person concerned is working to a properly agreed schedule of duties. This may either be a schedule complying with the merchant shipping rules on hours of work, or another "relevant agreement". Annex

2 gives guidance on “relevant agreements”. In either case, where such a schedule or other relevant agreement is in place, the rest periods above do not apply provided that schedule or agreement provides for compensatory rest time and that the employer ensures that the hours worked do not put at risk the health and safety of the young person.

5.5 Time spent training constitutes working time. This includes time spent undergoing formal instruction at college or on training courses away from the ship, as well as training received on board. It does not include private study time either on board or ashore.

## **6. Night work**

6.1 In addition, the Minimum Age Regulations prohibit those under the age of 18 being engaged in night work except in specified circumstances, which are when

- effective training of the seafarers concerned in accordance with established programmes and schedules would be impaired, and
- the specific nature of the duty of the seafarer concerned, or a recognised training programme requires -
  - that the seafarers perform duties at night, and
  - the work involved in those duties falls within a category described in paragraph 6.3

6.2 The MLC allows that the competent authority may determine, after consultation with the shipowners' and seafarers' organisations concerned, that the work will not be detrimental to their health or well-being.

6.3 The following established work programmes and schedules of training fall within the exception in paragraph 6.1:

- any Deck Officer training under STCW Regulations II/1, II/2 and II/3;
- any Engineer Officer training under STCW Regulations III/1, III/2 and III/3;
- any Navigational watch Rating training under STCW Regulation II/4 ;
- any Engine Room watch Rating training under STCW Regulation III/4 ;
- any training of Ratings as AB, Deck or Engine;
- any training of Electro-technical Officers under STCW Regulation III/6;
- any training of Electro-technical Ratings under STCW Regulation III/7;
- any training of Radio personnel under STCW Regulation IV/2;
- any training for alternative certification under STCW Regulation VII.

## **7. Health assessment**

7.1 Under the General Duties regulations the employer is required to provide for health surveillance of workers where appropriate. Annex 2 to MGN 20 (M+F) provides guidance on when surveillance is appropriate.

7.2 Under the Young Persons Regulations, where the risk assessment carried out under regulation 5(2) identifies a risk to the health and safety of young persons, or where any young person is required to work at night (other than in exceptional circumstances), the young persons concerned are entitled to free assessment of their health and capacities before starting work and regular monitoring thereafter. This monitoring is required only so long as night work continues, unless there are other factors arising from the work which may have long term consequences to health.

## **8. Medical certificates**

8.1 Any young person employed on a UK ship must be in possession of a current medical fitness certificate. In case of merchant seafarer this means a fitness certificate which complies with the requirements of the Merchant Shipping (Medical Certification) (Maritime Labour Convention) Regulations 2010. Such certificates are valid for 1 year. Further information is contained in Merchant Shipping Notice 1822 (M).

## **9. Record of young persons**

9.1 The master is required to hold a record, as part of the List of Crew, of any young persons engaged as workers on the ship together with their dates of birth and date of engagement on the ship. A summary of the provisions of the Merchant Shipping and Fishing Vessels (Employment of Young Persons) Regulations must also be included in the folder enclosing the list of crew. Form MSF4129 (Annex 3) produced by the MCA should be used for this purpose. Copies can be downloaded from the MCA website at [www.dft.gov.uk/mcga](http://www.dft.gov.uk/mcga). Alternatively employers may produce their own versions providing they replicate the format and text of MSF4129.

## **10. General Health and Safety**

10.1 When considering the employment of young persons, employers should have regard to all current health and safety regulations produced by the Maritime and Coastguard Agency as well as the related Merchant Shipping Notices and Marine Guidance Notes.

10.2 Measures should also be taken by the employer to bring to the attention of young persons 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 persons.

10.3 Education and training of young persons both ashore and on board a ship 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.

## **11. Further guidance for the well-being of young persons**

11.1 If, after a seafarer under the age of 18 years has served on a ship for at least four months during their first foreign-going voyage, it becomes apparent that they are unsuited to life at sea, they should be given the opportunity of being repatriated at no expense to themselves from the first suitable port of call in which there are consular services of the flag State, or the State of nationality or residence of the young seafarer.

## **12. HSE Website**

12.1. Further guidance on specific risks are available on the HSE website :

<http://www.hse.gov.uk/youngpeople/risks/>

## **More Information**

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***Safer Lives, Safer Ships, Cleaner Seas***



## HAZARDS, RISKS AND WAYS OF AVOIDING THEM

- The table lists the agents, processes and work taken from the annex to the European directive on the protection of young people at work (94/33/EC) which the European Union considers are likely to give rise to dangers to young people (**see para 3.3 of this Notice**).
- Where these are considered likely to apply to young workers on ships, advice is given on what risks may arise, and how they should be avoided.
- The advice is generally based on the HSE publication *Young People at Work – A Guide for Employers* but with the addition of some ship specific provisions.

| Lists of agents, processes and work  | Risk  | How to avoid risk   |
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| <b>WORK OBJECTIVELY BEYOND PHYSICAL OR PSYCHOLOGICAL CAPACITY</b>  |   |   |
| Physical capacity:<br><i>e.g. the lifting, moving or carrying of heavy loads or objects or similar work which is beyond their physical capacity</i>  | Accidents, injuries and or musculoskeletal disorders which can occur in jobs that require repetitive or forceful movements, particularly in association with awkward posture or insufficient recovery time  | The risk assessment should take account of the physique and general health, age and experience.<br><br>Training and appropriate supervision should be provided.   |
| Work the pace of which is determined by machinery and which involves payment by results  | Young people may be more at risk as their muscle stretch may not be fully developed, and they may be less skilled in handling techniques or in pacing the work according to capacity. They may also be more subject to peer pressure to take on tasks that are too much for them or to work more quickly.   | The risk assessments should take account of age and experience.<br><br>Training and appropriate supervision should be provided.   |
| Psychological capacity   | Although there will large individual differences in the psychological capacity of young people based on differences in training, experience, skills, personality and attitudes in the vast majority of jobs there is no difference in the kind of mental and social skills used by young people and adults. | The risk assessment should focus on critical tasks which rely on skill, experience and an understanding of the task requirements. Training and effective supervision should be provided, particularly where the young person might be using machinery with exposed dangerous parts. |
| <b>WORK INVOLVING HARMFUL EXPOSURE TO AGENTS WHICH ARE TOXIC, CARCINOGENIC, CAUSE HERITABLE GENETIC DAMAGE, OR HARM TO THE UNBORN CHILD, OR WHICH IN ANY OTHER WAY CHRONICALLY AFFECT HUMAN HEALTH</b> |   |   |
| Physical agents:<br><i>Work in high pressure atmospheres</i>   | There are three types of health problem which can be caused by working in compressed air:<br><br><b>Barotrauma:</b> where a change in surrounding pressure causes   | On the UKCS, divers must have an HSE certificate of competence or equivalent, be fit and must have a valid certificate of medical fitness to dive. There is no minimum age  |





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|                           | <p>direct damage to those air-containing cavities in the body which are directly connected with the surrounding atmosphere, principally the ears, sinuses and lungs.</p> <p><b>Decompression illness:</b> which mostly occurs as a condition involving pains around the joints, or, more rarely, as a serious, potentially life-threatening condition which may affect the central nervous system, the heart or the lungs.</p> <p><b>Dysbaric osteonecrosis:</b> which is a long-term condition damaging the long bones, hip or shoulder joints.</p> <p>Young people's bones are not fully developed and may be at greater risk of long-term harm.</p> | <p>limit for divers. However, it is unusual for anyone below school leaving age to undergo diver training and no one under 18 is accepted for work by employers offshore.</p>   |
| <i>Noise</i>              | <p>There is no evidence that young people face greater risk of damaged hearing from exposure to noise than other workers.</p>  | <p>Reference documents: Merchant Shipping and Fishing Vessels (Control of Noise at Work) Regulations 2007 and Marine Guidance Note 352 (M+F)</p> <p>Compliance with the regulations will protect the hearing of most young people. Ensure that a competent person supervises the wearing of ear protection to ensure it is worn properly, during exposure to loud noise.</p>  |
| <i>Hand-arm vibration</i> | <p>There is no evidence that young people face greater risk of developing hand-arm vibration syndrome (vibration white finger) following exposure to hand-arm vibration than other workers. However there is an increased risk in the onset of non-occupational Raynaud's disease during adolescence which can give similar symptoms to vibration white-finger. Young persons with non-occupational Raynaud's disease should not be exposed to hand-arm vibration.</p>   | <p>Reference documents: the Merchant Shipping and Fishing Vessels (Control of Vibration at Work) Regulations 2007 and Marine Guidance Note 353 (M+F).</p> <p>Action should be taken to protect young persons where exposure exceeds an acceleration of 2.5 m/s<sup>2</sup>. Employers will need to consider a programme to control the significant risks identified in the risk assessment including identification of hazardous equipment/tasks; limiting exposure to 1 m/s<sup>2</sup> normalised over 8 hours (A(8)), by reducing either time of exposure and/or vibration level; providing competent supervision;</p> |



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|  |  | and health surveillance.  |
| <i>Whole body vibration</i>  | Regular exposure to low frequency vibration, or to shocks, for example working in fast rescue craft, may be associated with back pain and other spinal disorders. Younger workers may be at increased risk of damage to the spine as the strength of the muscles is still developing and the bones do not fully mature until around the age of 25. | Reference documents: Merchant Shipping and Fishing Vessels (Control of Vibration at Work) Regulations 2007; Marine Guidance Notes MGN 353 (M+F) and MGN 436 (M+F)<br><br>Action should be taken to protect young persons when exposure exceeds an acceleration of 0.5 m/s <sup>2</sup> . Employers will need to consider a programme to control the significant risks identified in the risk assessment including: identification of hazardous equipment/tasks; limiting exposure by reducing the time and/or level; producing information and training on how to minimise the risk; and health monitoring. |
| Biological agents (micro-organisms)  | Despite physical and psychological immaturity, young persons are no more likely to contract infections from biological agents than adults. Like any other workers they may be at greater risk if they suffer from any other disease, are taking medication or are pregnant.  | Reference documents: the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Biological Agents) Regulations 2010 and MGN 408 (M+F).<br><br>Precautions should be taken to protect all workers against risk of infection at work and of acquiring an allergy to certain microbes, regardless of their age or state of health. Following a risk assessment approach, control measures can be as simple as maintaining high standards of hygiene i.e.. hand washing or use of gloves. Where available, vaccination should be offered as a supplement to procedural or physical controls.        |
| Chemical agents:<br><i>Very toxic, toxic, harmful, corrosive and irritant substances</i> | Young people are not physiologically at any greater risk from exposure to such substances than anyone else. However, young people may lack awareness of hazards and risks to their health.   | Reference documents: Merchant Shipping and Fishing Vessels (Health and Safety at Work)(Chemical Agents) Regulations 2010 as amended and <b>MGN 409(M+F) and MGN 454(M+F)</b><br>Chapter 27 of the Code of Safe Working Practices for Merchant Seamen  |



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|                                       |   | <p>Employers should assess the health risks to young people, arising from work with such substances, and where appropriate use a safer substance or change the process to avoid its use.</p> <p>Where information is supplied with the substance, for example under <b>CHIP</b> or <b>COSHH</b> regulations, particular attention should be paid to such information.</p> <p>Workers should be given any relevant information affecting their health and safety, instruction and training in the safe handling and use of the substance, and be provided with adequate supervision within a safe system of work.</p> |
| Carcinogenic substances               | Some substances ( <i>carcinogens</i> ) may cause cancer. They need special consideration because of that property – they have no special effect on young people.                        | <p>Reference documents: Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Carcinogens and Mutagens) Regulations 2007 and Marine Guidance Note 356.</p> <p>Many of these substances can be identified from the label or safety data sheet (where supplied) for the substance, which will say “May cause cancer”.</p> <p>Exposure is to be reduced to as low a level as reasonably practicable.</p>   |
| Mutagens                              | Some substances may impair people’s ability to have children or may damage the unborn child.  | <p>Reference document: MGN 460(M+F) New and Expectant Mothers</p> <p>Exposure is to be reduced to as low a level as reasonably practicable.</p>  |
| Substances causing allergic reactions | <p>Some substances can cause allergic reactions in people. This may give them dermatitis or asthma.</p> <p>These substances do not affect young people any differently from adults.</p> | <p>HSE guidance on preventing asthma at work and dermatitis, gives practical advice on preventing risk to all workers. General guidance on hazardous substances is contained in Chapter 27 of the Code of Safe Working Practices for Merchant Seamen.</p>  |
| Lead and lead                         | Young people are not  | See above on chemical agents.  |



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| <p>compounds</p> | <p>physiologically at any greater risk from exposure to lead and its compounds than anyone else.</p> <p>Lead and its inorganic compounds are known to produce diverse biological effects in humans depending on the exposure level. These range from minor biochemical changes in the blood, to severe irreversible or life threatening disruption of body processes, in particular the nervous system and the kidneys. There are also concerns about the effects of lead on the quality of semen and on the unborn child.</p> <p>The toxic effects of lead alkyls are primarily neurological or psychiatric. Symptoms include agitation, insomnia, dizziness, tremors and delirium, which can progress to mania, coma and death. These symptoms are accompanied by nausea, vomiting and abdominal pain. The actual risk can only be determined following a risk assessment of the particular circumstances under which there is exposure at the place of work. However, young people may not appreciate the dangers to their health or they may not understand or follow instructions properly because of their immaturity</p> | <p>Lead may be found in some paints. Guidance on precautions to be taken while painting or cleaning or rubbing down painted surfaces, are contained in Chapter 24 of the Code of Safe Working Practices for Merchant Seamen.</p> <p>Employers should ensure that they adequately control the exposure of young people to lead and its compounds. Special attention should be paid to the provision of information, instruction and training, and to the provision of adequate supervision within a safe system of work.</p> |
| <p>Asbestos</p>  | <p>Young people are not physiologically at any greater risk from exposure to asbestos than anyone else. However, young people may not be aware of the hazards and risk to their health, or follow instructions properly because of their immaturity.</p> <p>Exposure to asbestos fibres causes three serious diseases;</p> <ul style="list-style-type: none"> <li>o Mesothelioma (a cancer of the lung lining)</li> <li>o Lung cancer (indistinguishable from</li> </ul>  | <p>Reference documents: Merchant Shipping and Fishing Vessels (Health and Safety at Work)(Asbestos) Regulations 2010 as amended and <b>MGN 429(M+F)</b></p> <p>Exposure to asbestos should be avoided wherever possible, and where it cannot be avoided precautions should be taken to reduce it to as low a level as possible. Advice is contained in MGN 429 and in Chapter 27 of the Code of Safe Working Practices for Merchant Seamen.</p>   |



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|   | <p>cancers caused by other agents)</p> <ul style="list-style-type: none"> <li>○ Asbestosis (scarring of the lung tissue)</li> </ul> <p>There are no cures for asbestos related diseases. These diseases can take many years to appear after the period of exposure (<i>long latency</i>). This latency effect means that an exposure occurring at a young age may be a higher risk than the same exposure later in life, simply because a young person is more likely to survive until the time when the disease is most likely to emerge.</p>   | <p>Workers should be given any relevant information affecting their health and safety, instruction and training in the safe handling and use of the substance, and be provided with adequate supervision within a safe system of work.</p>       |
| <b>WORK INVOLVING HARMFUL EXPOSURE TO RADIATION</b>             |  |  |
| <p>Ionising radiation</p>                                       | <p>The risk of developing cancer and hereditary defects from exposure to ionising radiation, which increases slightly for young people, is controlled by setting statutory annual dose limits. According to the HSE website, the main dose limits which relate to the whole body dose are the most important elements in relation to cancer risk. The limits for young people per calendar year are:</p> <ul style="list-style-type: none"> <li>• 6 millisieverts (mSv) for trainees under 18 years (30% of the adult limit). <i>Trainees (including students) are defined as being aged 16 years or above receiving instruction or training involving work with ionising radiation.</i></li> <li>• 1 mSv for employees below 18 years who are not trainees (the same limit as for the general public).</li> </ul> | <p>Regard should be had to the provisions of MGN 197 and MGN 452(M+F)</p> <p>In general seafarers may not be exposed to ionising radiation at sea although it is possible that such exposure might occur when X-ray equipment is being used.</p> |
| <p>Non-ionising radiation<br/>electromagnetic<br/>radiation</p> | <p><b>Optical radiation:</b> There is no evidence that young people face greater risk of skin and eye damage than other workers.</p>   | <p>Reference documents: Merchant Shipping and Fishing Vessels (Health and Safety at Work)(Artificial Optical Radiation) Regulations 2010 and MGN 428(M+F)</p>  |



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|   | <p><b>Electromagnetic fields and waves:</b> Exposure within current recommendations is not known to cause ill health to workers of any age. Extreme overexposure to radio-frequency radiation could cause harm by raising body temperature.</p> | <p>Non-binding EU guidance on artificial optical radiation at work.</p> <p>Seafarers working in hot climates are advised to reduce their exposure to the sun, following advice in Chapter 12.3 of the Code of Safe Working Practices for Merchant Seamen. If it is necessary to work in direct sunlight, appropriate clothing should be worn to protect both head and body.</p> <p>Reference document: EC Directive 2004/40/EC on the protection of workers from the risks related to exposure to electromagnetic fields at work. <i>[under review]</i></p> <p>Exposure to electric and magnetic fields should not exceed the restrictions on human exposure published by the Radiation Protection Division of the Health Protection Agency.</p> |
| <p><b>WORK INVOLVING THE RISK OF ACCIDENTS WHICH IT MAY BE ASSUMED CANNOT BE RECOGNISED OR AVOIDED BY YOUNG WORKERS OWING TO THEIR INSUFFICIENT ATTENTION TO SAFETY OR LACK OF EXPERIENCE OR TRAINING</b></p> |   |  |
| Manufacture and handling of devices, fireworks or other objects containing explosives   |   | It may be necessary to explain the safe handling of pyrotechnics such as distress flares, rockets, line throwing devices, floating smokes, life raft signals and man overboard markers.  |
| Work with fierce or poisonous animals   | Unlikely to be relevant to work on ships.   |  |
| Animal slaughtering on an industrial scale  | Unlikely to be relevant to work on ships.   |  |
| Work involving the handling of equipment for the production, storage or application of compressed, liquefied or dissolved gases.  |   |  |
| Work involving the operation of high risk lifting equipment or acting as signallers to operators of such equipment.   | <p>ILO Convention 152 Article 38</p> <p>There may be substantial risks associated with the use of lifting accessories, for example during 'slinging' and employers need to assess whether such work is appropriate for young people.</p>        | Reference documents: Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations 2006; Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006 and the respective Marine Guidance Notes MGN 331 and  |



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|   |  | <p>MGN 332.; Code of Safe Working Practices for Merchant Seamen Chapter 21.</p> <p>Young people may use high-risk lifting machinery under training as long as they are adequately supervised. They should also be supervised after training if considered not sufficiently mature.</p>   |
| Working involving the operation of power machinery or tools | Young people (under 18 years) should not be allowed to use power machinery or tools unless they have the necessary maturity and competence which includes having completed appropriate training. | <p>Reference documents: Code of Safe Working Practices for Merchant Seamen, Chapter 20 sections 20.4 to 20.8</p> <p>Young people may operate power equipment and tools during training providing they are sufficiently mature and are adequately supervised. They should also be properly supervised after training until they reach the appropriate level of competence and can work safely unsupervised.</p> |
| Entry into boilers, tanks and cofferdams.                   | Risk from depleted oxygen levels, toxic gases, risk of explosion.  | <p>Reference documents: Merchant Shipping (Entry into Dangerous Spaces) Regulations 1988; Chapter 17 of the Code of Safe Working Practices for Merchant Seamen; Marine Guidance Note 423(M+F);</p> <p>Young persons may do this work under training and with adequate supervision.</p>   |
| Handling mooring or tow lines or anchoring equipment        | Risk being struck by or striking another person when lines are thrown; risk from parting of ropes and cables under tension.  | <p>Reference documents: Code of Safe Working Practices for Merchant Seamen Chapter 25</p> <p>Marine Guidance Note 308 (M+F) which deals with Mooring, Towing or Hauling Equipment On All Vessels – Safe Installation and Safe Operation.</p>   |
| Flammable liquids   | Accidental spills can cause fires or explosions<br>Flammable liquids should be used only for their intended purposes: using them for other purposes may lead to fires or explosions              | It may be necessary to explain the basics of flammability and what to do if liquid is spilt. It may also be necessary to point out the dangers of using liquids, such as petrol for cleaning machinery.  |
| Flammable gases   | Leaking gas from pipes,  | It may be necessary to explain   |



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|  | appliances or cylinders can cause fires or explosions.   | basics of flammability; people need to know how to detect leaking gas and what to do in the event of a gas leak.  |
| Gas cylinders                                  | <p>There is no evidence that young people face greater physical risks from a release of stored energy than other workers. Leaking gas from cylinders may cause fires or explosions.</p> <p>Physical damage to cylinders may cause leaks. Heavy cylinders may cause physical injury if not properly handled.</p> <p>Application of heat to gas cylinders may cause them to burst possibly resulting in “shrapnel” type explosion. Alternatively the contents may be vented through a pressure release valve resulting in fire or explosion.</p> | <p>It may be necessary to explain the basics of flammability; people need to know how to detect leaking gas and what to do in the event of a gas leak.</p> <p>Gas cylinders need to be properly handled, both to avoid the danger of fire or explosion, and the risk of physical injury to the worker, e.g. crushed toes.</p> <p>Gas cylinders need to be safely and used away from direct sources of heat. Guidance is contained in Chapter 23, Section 8 of the Code of Safe Working Practices for Merchant Seamen.</p> |
| Work with tanks etc containing chemical agents | This applies particularly to work on chemical tankers or any work involving handling or working near to substantial quantities of substances hazardous to health. There is a risk of fire or explosion where there is an explosive atmosphere or where spills or leaks of flammable substances are readily foreseeable. There is also a risk of ignition of a flammable liquid which has splashed or soaked into clothing.   | <p>The risk assessment should consider issues such as:</p> <ul style="list-style-type: none"> <li>○ how to ensure that young people will follow emergency procedures properly if containment is lost; and</li> <li>○ how to ensure that young people behave responsibly when working near quantities of chemicals that have the potential to cause serious harm: e.g. making young workers aware of the dangers of introducing ignition sources in these situations.</li> </ul>   |
| Handling or taking charge of ship's boats      |  |   |
| <b>WORKING IN EXPOSED POSITIONS</b>            |  |   |
| Working at height, rigging                     | Risk of falling or dropping items on workers below through lack of concentration or lack of experience   | Only to work under supervision. Chapter 15 of the Code of Safe Working Practices for Merchant Seamen. Marine Guidance Note 410 (M+F) gives general guidance on working at height.   |
| Working at height or over the side.            | Risk from falling from aloft or over the ship's side or into the water.  | Only to work under supervision. Chapter 15 of the Code of Safe Working Practices for Merchant   |





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|  |   | Seamen. Marine Guidance Note 410 (M+F) gives general guidance on working at height.  |
| Working on deck in heavy weather.  | Risk of injury or of getting washed over the ship's side  | Reference documents:<br>Code of Safe Working Practices for Merchant Seamen, section 13.9   |
| Work involving risk of structural collapse                               | May be relevant for cargo stacking and movement of ships' stores  | Cargo should be stowed and secured in accordance with the Cargo Securing Manual and where work is to be carried out near a tall stack of cargo or stores, the stack should be secured to prevent it falling. Young workers should only do such work if properly trained or if they are under supervision of a trained person.                  |
| <b>OPERATING HAZARDOUS EQUIPMENT</b>                                     |   |  |
| Servicing of electrical equipment  | Risk of electric shock or other injury if equipment not properly isolated from a power source.  | Regard should be had to the provisions of the Merchant Shipping and Fishing Vessels (Provision and Use of Equipment) Regulations 2006 and Marine Guidance Note 331   |
| Work involving high-voltage electrical hazards.                          | The risk is one of electric shock, burns or electrocution. There is no evidence that young people face greater physical risk from electricity than other workers. | Reference documents: MGN 452(M).<br><br>As with adults, young people should not undertake work involving electricity unless they have the necessary knowledge and/or experience to prevent danger or injury; or are under an appropriate level of supervision having regard to the nature of the work.   |
| Cleaning of catering machinery   | Risk of injury from moving or sharp parts   | Regard should be had to the provisions of the Merchant Shipping and Fishing Vessels (Provision and Use of Equipment) Regulations 2006 and Marine Guidance Note 331. (See the Code of Safe Working Practices for Merchant Seamen (CSWP) section 14.7.6: unless properly supervised young persons must not clean a machine with dangerous parts) |
| Use of ship's laundry equipment  |   | Young persons must be fully trained and if appropriate closely supervised by a competent person (see Code of Safe Working Practices for Merchant Seamen section 20.12.1)   |
| <b>WORK IN WHICH THERE IS A RISK TO HEALTH FROM EXTREME COLD OR HEAT</b> |   |  |
| Extremes of cold or  | Exposure to extreme cold  | Depending on the findings of the   |



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| <p>heat</p> | <p>carries risks to workers of all ages. These are principally hypothermia and local cold injury (frostnip/frostbite). People of all ages vary in their ability to tolerate cold conditions.</p> <p>Exposure to extreme heat carries risks for workers of all ages. These include collapse due to heat exhaustion or potentially fatal heat stroke. Protective clothing may exacerbate the problem by preventing the body from losing heat normally. There are no special considerations for young people – their response to work in hot conditions will depend on physical fitness, physique and past experience of hot conditions, which will be variable.</p> | <p>risk assessment, the provision of appropriate protective clothing and control of periods of exposure will help to minimise the risk.</p> <p>Any intended exposure to heat must be carefully assessed and the risks can be minimised by measures such as introducing suitable work patterns, prior medical assessment of workers and proper supervision of the work.</p> <p>Guidance on the precautions for work in hot climates is given in Section 12.3 of the Code of Safe Working Practices for Merchant Seamen.</p> |
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## RELEVANT AGREEMENTS

A relevant agreement is defined in the MS and FV (Health and Safety at Work) Regulations as follows:

*“relevant agreement” in relation to a worker, means a workforce agreement which applies to him, any provision of a collective agreement which forms part of a contract between him and his employer, or any other agreement in writing which is legally enforceable as between the worker and his employer”*

*“workforce agreement” means an agreement between an employer and workers employed by him or their representatives in respect of which the conditions set out in the Schedule to the Working Time Regulations 1998 are satisfied”*

The following guidance, reproduced from “A Guide to Working Time Regulations, published by the Department of Trade and Industry in September 1998 <sup>4</sup>, describes workforce agreements as defined in the Schedule.

## WORKFORCE AGREEMENTS

The regulations provide a mechanism for employers to agree working time arrangements with workers’ representatives, who do not have any terms or conditions set by a collective agreement, *and whether or not a schedule of hours of work is required under the Merchant Shipping (Safe Manning, Hours of Work and Watchkeeping) Regulations 1997 (regulation 9)*. In the regulations, this is called a workforce agreement. This allows employers to agree on how to use the flexibility provided by the Regulations and clarify other matters. A workforce agreement may apply to the whole of the workforce or a group of workers within it. Where it is to apply to a group of workers, the group must share a workplace, function or organisational unit within a business.

As a first step, employers should determine at what level they wish to make an agreement and then take steps to provide for representatives of the workers to be elected to negotiate it. To arrange the election of workforce representatives, the employer should

- a. decide on the number of representatives – this will depend on the size of the workforce or the group to be represented; it is suggested that the number be sufficiently large to be representative of the workers concerned, though not so large as to make negotiations unwieldy;
- b. ensure so far as is reasonably practicable that the elections must be conducted by secret ballot; in practice it would be rare for this not to be possible;
- c. ensure that the votes are counted fairly and accurately; the employer may wish to consider enlisting an independent body to verify this;
- d. allow each worker a vote for each representative to be elected to represent them; and
- e. ensure that candidates are members of the workforce on the date of the election, or, in the case of a group, a member of the group to whom the agreement is to apply.

No member of the workforce should unreasonably be excluded from standing as a candidate.

To be valid, a workforce agreement must:

- a. be in writing
- b. have been circulated in draft to all workers to whom it applies together with guidance to assist their understanding of it;



- c. be signed, before it comes into effect, either
- by all the representatives of the members of the workforce or group of workers; or
  - if there are 20 workers or fewer employed by a company, either by all the representatives of the workforce or by a majority of the workforce;
- d. have effect for no more than five years.

It will be possible for an elected representative to be elected for other purposes, for example as a *safety representative under the MS and FV (Health and Safety at Work) Regulations 1997*. However, it would have to be made clear to those voting that the representatives were being elected for both purposes.

<sup>4</sup> Modifications for merchant shipping are shown in italics.



**SUMMARY OF THE PROVISIONS OF SECTION 55 OF THE MERCHANT SHIPPING ACT 1995 AND THE MERCHANT SHIPPING AND FISHING VESSELS (HEALTH AND SAFETY AT WORK) (EMPLOYMENT OF YOUNG PERSONS) REGULATIONS 1998 (AS AMENDED)**

(This summary is required to be included in every list of crew by regulation 9)

No person under school leaving age may be employed in any ship. **In addition, no person under the age of 16 may be employed in any sea-going ship.**

Where young persons under the age of 18 are employed in a ship, appropriate measures shall be taken to protect them from the risks to their health and safety which are a consequence of their lack of experience, absence of awareness of existing or potential risks, or lack of maturity.

Young persons under the age of 18 may not begin work, unless –

- an assessment has been carried out of the risks to their health and safety as a result of their inexperience, absence of awareness of risks, or lack of maturity.
- the young persons have been informed of the findings of that assessment, and appropriate measures taken for their protection.

Young persons shall not be employed in work which is objectively beyond their physical or psychological capacity or otherwise involves exposure to the risks identified in the Schedule to the Regulations, unless that work is–

- indispensable for their vocational training; and
- is performed under the supervision of a competent person.

Young persons shall be provided with

- a rest period of 12 hours in every 24 hour period;
- a rest period of 2 days in every week;
- where daily working time is more than four and a half hours, a rest period of 30 minutes;

except where the young person is working –

- under a schedule of duties complying with regulation 9 of the Merchant Shipping (Safe Manning, Hours of Work and Watchkeeping) Regulations 1997, or
- under another relevant agreement; or
- on a fishing vessel;'

in which case they shall be allowed compensatory rest time and measures shall be taken to ensure that there is no risk to their health and safety.

Young persons shall be entitled to a free assessment of their health and capacities before starting work in a ship, and to free monitoring of their health, where the risk assessment identifies a significant risk to their health or where they are regularly required to work at night, for as long as they are exposed to that risk.

Young persons shall not be employed in any capacity unless the Master is in possession of a Medical Certificate issued by a duly qualified medical practitioner certifying that person is fit to be employed in that capacity. In cases of urgency a proper officer may authorise a young person to be employed without a certificate up to but not beyond the first port of call where there is a duly qualified medical practitioner.

The agreement with the crew must contain a list of all members of the crew under 18 years of age with the dates of birth and dates on which they became employed in the ship.



