



Maritime &
Coastguard
Agency

MERCHANT SHIPPING NOTICE

MSN 1882 (F) Amendment 1

ILO WORK IN FISHING CONVENTION, 2007 Minimum age and protection for young persons on fishing vessels

Notice to all fishing vessel owners and managers; employers of fishermen; skippers, officers and fishermen

This notice should be read with the Merchant Shipping (Work in Fishing Convention) Regulations 2018, the Merchant Shipping and Fishing Vessels (Health and Safety at work) (Employment of Young Persons) Regulations 1998 and with MGN 587(M). It replaces MSN 1882 (F) for the fishing industry.

For merchant vessels see MSN 1838(M) Amendment 1.

Summary

This notice provides information about the minimum age for fishermen and the protection of young persons (under 18 years) working on board UK fishing vessels.

- The minimum age for working on a UK seagoing fishing vessel is 16 years of age, but provision is made in certain circumstances for those aged 15 to do light work in school holidays.
- Additional safety measures are required to protect young persons (those under the age of 18 years), particularly for work which may jeopardise their health and safety.
- The employer must carry out a risk assessment with regard to the particular risks to young persons. Guidance is given on specific risks to young persons which may arise from their work on board fishing vessels
- Where young persons are required to work at night, the fishing vessel owner must ensure that the vessel's risk assessment records the steps they have taken to minimise the risks of nightwork and to protect the young person.
- "night" means a period of at least nine consecutive hours including the hours between midnight and 5 a.m. (local time)
- An employer must provide health surveillance for those under the age of 18 years who work at night.
- The minimum hours of rest are specified for fishermen under 18 years of age.



Relationship with the Merchant Shipping (Work in Fishing Convention) Regulations 2018 (“the 2018 Regulations”)

- The 2018 Regulations need to be read together with this Merchant Shipping Notice. This Notice contains details of the exceptions which apply to the night work prohibition under those Regulations. Failure to comply with those obligations may be a criminal offence under the Regulations.
- In order to assist with this, paragraph 11 identifies the provisions of this Notice which relate to the relevant provisions in the Regulations.

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 and form part of UK retained law. All the obligations in the EU legislation mentioned in the Young Persons Regulations, which had effect in the UK prior to the 1st January 2021, are retained in UK law, with any necessary modifications, after the end of the EU Exit implementation period.

Amendment 1 updates references and contact details.

1. Introduction

- 1.1 The Merchant Shipping (Work in Fishing Convention) Regulations 2018¹ (“the 2018 Regulations”) implement Article 9 of the ILO Work in Fishing Convention, 2017 (ILO 188) which sets the minimum age for those working on fishing vessels and requires additional protection for those under the age of 18 years.
- 1.2 The Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Employment of Young Persons) Regulations 1998² (“the 1998 Regulations”) implement for the maritime sector Council Directive 94/33/EC on the protection of young people at work (the “Young Persons Directive”).
- 1.3 Both sets of Regulations apply to United Kingdom fishing vessels and to other fishing vessels when they are in United Kingdom waters. Copies of the regulations are available from www.legislation.gov.uk.
- 1.4 For the purpose of the 2018 Regulations and the Young Persons Regulations, a young person is someone aged under 18 years of age.
- 1.5 Together the Regulations form part of a package which implements the ILO Work in Fishing Convention, 2007 (No. 188).

THE MERCHANT SHIPPING (WORK IN FISHING CONVENTION) REGULATIONS 2018

2. Fisherman to be of minimum age (Regulation 6(1))

- 2.1 The minimum age for any person working on a fishing vessel is normally 16 years of age. However, exceptions are permitted where -
 - 2.1.1 the person is over 15 years of age; and
 - 2.1.2 the employment or engagement is limited to light work during school holidays; and
 - 2.1.3 the purpose of the employment or engagement is to facilitate work experience and shadowing.

¹ S.I. 2018/1106

² S.I. 1998/2411



- 2.2 Where a person over 15 years but under the age of 16 is employed or engaged onboard a fishing vessel as described in paragraphs 2.1.2 and 2.1.3 they must have completed a course in basic sea survival recognised by the MCA for use onboard fishing vessels. Details of accepted courses can be found in MGN 411³ or its subsequent replacements.
- 2.3 Persons of 16 years or over working onboard fishing vessel must meet the full training requirements for fishermen as set out in MGN 411 or subsequent replacements.
- 2.4 In England a young person must be in part time education or training until they are 18⁴ and for more information the local education authority should be contacted.
- 2.5 Local authority byelaws may also regulate the work of those under school leaving age (“children”). The Department for Education publishes guidance on the employment of children and on post-16 work experience which should also be consulted:
<https://www.gov.uk/government/publications/guidance-on-the-employment-of-children>
<https://www.gov.uk/government/publications/16-to-19-study-programmes-guide-for-providers>
- 2.6 In addition, the booklet “*Young people and work experience*” is available to download from the HSE website: www.hse.gov.uk/pubns/indg364.pdf
- 2.7 Work activities “which are likely to jeopardise the health, safety or morals of young persons” must not be carried out by those under the age of 18. This MSN lists at paragraph 4.4 the type of activities where the nature of the activities or the circumstances in which they are carried out are likely to jeopardise a young person’s health and safety.
- 2.8 These activities may be undertaken by those under the age of 18 on condition that a risk assessment has shown that the risk to their health and safety has been mitigated by specific training, adequate supervision or other protective measures.

3. Young Persons on Night Duty (Regulation 7)

- 3.1 In addition, the 2018 Regulations prohibit those under the age of 18 being employed or engaged to work at night on a fishing vessel except in the following specified circumstances:
- 3.1.1 When effective training of the person, in accordance with established programmes and schedules, would be impaired; or
- 3.1.2 the specific nature of the duty including where a fishing vessel operates solely at night, or a recognized training programme, requires fishermen to perform duties at night and the MCA determines, after consultation, that the work will not have a detrimental impact on their health or well-being.
- 3.2 Fishing vessel owners who have 16 to 18 year olds engaged in nightwork on their vessels should include in their risk assessment the steps they have taken to minimise the risks of nightwork and to protect the young person from the physical and mental effects of fatigue and be prepared to demonstrate this to the satisfaction of an MCA surveyor.

³ Training and Certification Requirements for the Crew of Fishing Vessels of Fishing Vessels and their Applicability to Small Commercial Vessels and Large Yachts <https://www.gov.uk/government/publications/mgn-411-cert-req-for-crew-of-fv-their-use-to-vessels-yachts>

⁴ <https://www.gov.uk/know-when-you-can-leave-school>



- 3.3 In these Regulations, night means a period:
- (a) the duration of which is not less than nine consecutive hours, and
 - (b) which starts no later than midnight and ends no earlier than 5.a.m. (local time).
- 3.4 Work carried out at night as part of the following recognised training programmes and schedules of training is not considered detrimental to the health and well-being of fishermen under the age of 18 (see paragraph 3.1.2 above):
- Any training leading towards an MCA fishing certificate of Competency. More information can be found on the Gov.uk website <https://www.gov.uk/guidance/apply-for-a-uk-cofishing-vessel-officers>
 - Any training leading to Seafish voluntary courses for new entrant fishermen. including:
 - Introduction to Commercial Fishing - a 3-week induction course for those wanting to begin a career in fishing
 - Sea Fishing Apprenticeship - a year-long course for new entrants developed in collaboration with the Maritime Skills Alliance
- Further details and up to date information on training can be found on <http://www.seafish.org/training>
- 3.5 This list of training programmes has been agreed following consultation with the fishing vessel owners' and fishermen' organisations concerned.

THE MERCHANT SHIPPING AND FISHING VESSEL (HEALTH AND SAFETY AT WORK) (EMPLOYMENT OF YOUNG PERSONS) REGULATIONS 1998

4. Risk assessment (Regulation 5)

- 4.1 The fishing vessel owner or employer must 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. when carrying out a risk assessment in accordance with the Young Persons Regulations. This applies to all work activities, not only those listed in Annex A to this Notice.
- 4.2 The Young Persons Regulations specify the following areas for particular attention:
- (a) the fitting out and layout of working areas;
 - (b) the nature, degree and duration of exposure to physical, biological and chemical agents;
 - (c) the form, range and use of work equipment and the way in which it is handled;
 - (d) the organisation of processes and activities;
 - (e) the extent of the health and safety training provided or to be provided to the young persons concerned and;
 - (f) risks from agents, processes and work listed in the schedule to the regulations – also listed in Annex A.
- 4.3 Annex A also provides advice on the risks covered by the schedule and ways of avoiding or reducing them.
- 4.4 Having carried out their assessment(s), employers are required to ensure that young persons are not engaged in any work:
- (a) which is objectively beyond their physical or psychological capacity;
 - (b) 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;
 - (c) involving harmful exposure to radiation;



- (d) 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; or
- (e) involving a risk to health from –
 - extreme cold or heat, or
 - noise, or
 - vibration; or
 - optical radiation or;
 - electromagnetic fields.

4.5 Exceptions to these restrictions and prohibitions are allowed where the activity in question is -

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

4.6 This means, for example, that a trainee who is following a structured training programme and is working alongside an experienced and competent person or under direct supervision, may, as a part of that training, carry out activities which fall within the criteria listed in 4.4. At all times, the fishing vessel owner or employer has a duty to ensure the health and safety of the young person at work. Appropriate controls must be in place which reduces any risk to the minimum that is reasonably practicable.

4.7 Young persons must be informed 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.

4.8 If the fishing vessel owner or employer has brought in someone to advise on health and safety (referred to in the Regulations as a competent person), they must provide them with any information relevant to that role. This should include being notified of any young persons working on the fishing vessel and of any risks identified specifically in relation to them.

5. Rest periods for young persons (Regulation 6)

5.1 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. Where a young person's daily working time is more than four and-a-half hours, they should be provided with a rest break of at least 30 minutes which should be consecutive if possible.

5.2 It is recognised that if applied rigidly, the minimum rest requirements could restrict the employment of young persons on board fishing vessel, since they cannot be fitted into the operating schedules of many fishing vessels. 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.

5.3 In addition, derogations are built into the regulations where the young person concerned is working to a properly agreed written schedule of duties, where specified in their Fisherman's Work Agreement ("a relevant agreement"). This may either be a written schedule as referred to in MSN 1884(F) paragraph 3.3.3.3 or in a Safe Manning Document. Where such a schedule is in place, the rest periods above do not apply, provided that schedule provides for adequate compensatory rest time and that the fishing vessel owner or employer ensures that the hours worked do not put at risk the health and safety of the young person.



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

THE MERCHANT SHIPPING AND FISHING VESSELS (HEALTH AND SAFETY AT WORK) REGULATIONS 1997 (“the General Duties” Regulations)

6. Health surveillance

- 6.1 Under the General Duties Regulations, the employer is required to provide for health surveillance of workers where appropriate.
- 6.2 Where the risk assessment 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.

7. Further guidance on Health and Safety of Young Persons

- 7.1 When considering young persons working on board, fishing vessel owners and employers should have regard to all current health and safety regulations produced by the Maritime and Coastguard Agency in addition to the related Merchant Shipping Notices and Marine Guidance Notes.
- 7.2 The fishing vessel owner and the employer should bring to the attention of young persons information concerning the prevention of accidents and the protection of their health on board fishing vessels. Such measures could include adequate instruction, training, official accident prevention publicity intended for young persons and professional instruction and supervision.
- 7.3 On board training/familiarisation of young persons should include guidance on the increased risk to their safety and 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.

OTHER REQUIREMENTS APPLYING TO YOUNG PERSONS

8. Young persons’ Medical certificates

- 8.1 Any young person working on a UK fishing vessel must be in possession of a current medical fitness certificate. This means a fitness certificate which complies with the requirements of the Merchant Shipping (Work in Fishing Convention) (Medical Certification) Regulations 2018. Such certificates are valid for 1 year. Further information is contained in Merchant Shipping Notices MSN 1883 (F) and MSN 1886 (M+F).

9. Record of young persons

- 9.1 The skipper is required to hold a record, alongside the copy of the List of Crew on board the vessel, of any young persons working on the fishing vessel together with their dates of birth and date of engagement on the fishing vessel. A summary of the provisions of the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Employment of Young Persons) Regulations 1998 must be available with the list of crew. See MSN 1891(F).



10. References to this Notice in the Merchant Shipping (Work in Fishing Convention) Regulations 2018

Regulation 6(3) requires that any person under the age of 16 years undertaking work experience during school holidays on a fishing vessel must have completed a basic sea survival course meeting the specifications of this Notice. Paragraph 2.2 of this notice lays down those specifications.

Regulation 6(4) restricts certain activities which are in themselves or because of the circumstances in which they are carried out, likely to jeopardise the health, safety or morals of a person under 18 years of age. The activities considered by the MCA, having consulted the Fishing Federations, the unions and the Fishermen's Mission to fall into this category are listed in paragraph 4.4 of this Notice and at Annex A with the protective measures to minimise these risks.

Regulation 7(2)(b) (young persons on night duty): Paragraph 3.4 of this Notice specifies work at night which is not detrimental to the health and well-being of fishermen under the age of 18.

More Information

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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 paragraph 4.4 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.

Lists of agents, processes and work	Risk	How to avoid risk
WORK OBJECTIVELY BEYOND PHYSICAL OR PSYCHOLOGICAL CAPACITY		
Physical capacity: <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. 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. 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.



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		
Physical agents: <i>Work in high pressure atmospheres</i>	Not relevant on fishing vessels	
<i>Noise</i>	There is no evidence that young people face greater risk of damaged hearing from exposure to noise than other workers.	Reference documents: Merchant Shipping and Fishing Vessels (Control of Noise at Work) Regulations 2007 and MGN 352 (M+F) Amendment 1. 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.
<i>Hand-arm vibration</i>	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.	Reference documents: the Merchant Shipping and Fishing Vessels (Control of Vibration at Work) Regulations 2007 and MGN 353 (M+F). Action should be taken to protect young persons where exposure exceeds an acceleration of 2.5 m/s ² . 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 ² normalised over 8 hours (A(8)), by reducing either time of exposure and/or vibration level; providing competent supervision; 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; MGN 353 (M+F) and MGN 436 (M+F) Action should be taken to protect young persons when exposure exceeds an acceleration of 0.5 m/s ² . 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 MSN 1889(M+F) Amendment 2. 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: <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 Merchant Shipping Notice MSN 1888 (M+F) Amendment 2. 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. Where information is supplied with the substance, for example under regulations on classification, labelling and packaging of hazardous substances (CLP) or the Control of Substances Hazardous to Health (COSHH) Regulations, particular attention should be paid to such information. 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.
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.	Reference documents: Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Carcinogens and Mutagens) Regulations 2007 as amended and Marine Guidance Note MGN 624 (M+F). 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”. Exposure is to be reduced to as low a level as reasonably practicable.
Mutagens	Some substances may impair people’s ability to have children or may damage the unborn child.	Reference document: MSN 1890 (M+F) Amendment 2 Exposure is to be reduced to as low a level as reasonably practicable.
Substances causing allergic reactions	Some substances can cause allergic reactions in people. This may give them dermatitis or asthma. These substances do not affect young people any differently from adults.	HSE guidance on preventing asthma at work and dermatitis, gives practical advice on preventing risk to all workers.
Lead and lead compounds	Young people are not physiologically at any greater risk from exposure to lead and its compounds than anyone else. 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	See above on chemical agents. 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 25 of the Code of Safe Working Practices for Merchant Seafarers. 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



	<p>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>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"> ○ Mesothelioma (a cancer of the lung lining) ○ Lung cancer (indistinguishable from cancers caused by other agents) ○ Asbestosis (scarring of the lung tissue) <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>Reference documents: Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Asbestos) Regulations 2010 as amended and MGN 429(M+F) and Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Asbestos) (Amendment) Regulations 2013 and MGN 493 (M+F)</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 (M+F).</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>



WORK INVOLVING HARMFUL EXPOSURE TO RADIATION		
Ionising radiation	<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"> • 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> • 1 mSv for employees below 18 years who are not trainees (the same limit as for the general public). 	<p>Regard should be had to the provisions of MGN 197(M+F) Amendment 1 and MGN 451(M+F)</p> <p>In general fishermen 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>
Non-ionising radiation electromagnetic radiation	<p>Optical radiation: There is no evidence that young people face greater risk of skin and eye damage than other workers.</p> <p>Electromagnetic fields and waves: 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>Reference documents: Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Artificial Optical Radiation) Regulations 2010 and MGN 428(M+F) Amendment 1 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. If it is necessary to work in direct sunlight, appropriate clothing should be worn to protect both head and body.</p> <p>Reference document: Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Electromagnetic Fields) Regulations 2016 and MGN 559(M+F).</p> <p>Exposure to electric and magnetic fields should not exceed the restrictions on human exposure</p>



		published by the Radiation Protection Division of the Health Protection Agency.
WORK INVOLVING THE RISK OF ACCIDENTS WHICH IT MAY BE ASSUMED CANNOT BE RECOGNISED OR AVOIDED BY YOUNG PERSONS OWING TO THEIR INSUFFICIENT ATTENTION TO SAFETY OR LACK OF EXPERIENCE OR TRAINING		
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, 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	Use of knives for filleting and gutting on moving deck etc	
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.	ILO Convention 152 Article 38 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.	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 MGN 331 (M+F) Amendment 1 and MGN 332 (M+F) Amendment 1; 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.
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.	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.



Entry into fish holds, boilers, tanks and cofferdams and other enclosed spaces	Risk from depleted oxygen levels, toxic gases, risk of explosion.	Reference documents: MGN 309(F) Fishing Vessels: the Dangers of Enclosed Spaces Young persons may do this work under training and with adequate supervision.
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.	Reference documents: MGN 592(M+F) which deals with Mooring, Towing or Hauling Equipment On All Vessels – Safe Installation and Safe Operation.
Flammable liquids	Accidental spills can cause fires or explosions 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, appliances or cylinders can cause fires or explosions.	It may be necessary to explain basics of flammability; people need to know how to detect leaking gas and what to do in the event of a gas leak. Reference document: MGN 310 (F) FV Risk of Fire and Explosion from Gas Welding and Burning.
Gas cylinders	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. Physical damage to cylinders may cause leaks. Heavy cylinders may cause physical injury if not properly handled. 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.	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. 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. Gas cylinders need to be safely stored and used away from direct sources of heat. Reference documents: MGN 310 (F) FV Risk of Fire and Explosion from Gas Welding and Burning. Chapter 24, Section 9 and 10 of the Code of Safe Working Practices for Merchant Seafarers.



Work with tanks etc containing chemical agents	Unlikely to apply on fishing vessels-	
Work on or near refrigeration plant	Refrigeration plants on freezer trawlers. Refrigeration gases may be toxic and flammable.	Reference document: Appendix 11 to the Code of Safety for Fishermen and Fishing Vessels 2005 (FAO, ILO and IMO). The risks should be explained. Only to work following instruction and under supervision by a competent person and with safety measures in place, including indicator alarms, with control panel outside the space. In case of any risk of exposure to refrigerant liquid, goggles, rubber or pvc gloves, and other personal protective equipment to be worn.
Handling or taking charge of ship's boats	Unlikely to apply on fishing vessels	
WORKING IN EXPOSED POSITIONS		
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. MGN 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. MGN 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	Personal Flotation Devices or safety harness (fall prevention) to be worn Reference documents: MGN 588 Compulsory provision and wearing of personal flotation devices on fishing vessels MSN 1870(M+F) Amendment 1 on the Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999
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.



Working close to moving machinery, fishing gear and mooring operations	Risk from fishing gear and mooring lines.	Ensure awareness of where to stand/work on the fishing vessel where fishermen to avoid risk of entrapment, being struck by gear etc (i.e. safe zones) including avoiding snap back zones from mooring gear.
OPERATING HAZARDOUS EQUIPMENT		
Servicing of electrical equipment	Risk of electric shock or other injury if equipment not properly isolated from a power source.	Reference documents: Merchant Shipping and Fishing Vessels (Provision and Use of Equipment) Regulations 2006 and MGN 331(M+F) Amendment 1
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). 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 MGN 331 (M+F) Amendment 1. Unless trained and properly supervised young persons must not clean a machine with dangerous parts.
Use of ship's laundry equipment	Industrial laundry equipment unlikely to apply on fishing vessels. See above on risk from electrical equipment – noting additional risk of damp environment.	
WORK IN WHICH THERE IS A RISK TO HEALTH FROM EXTREME COLD OR HEAT		
Extremes of cold or heat	Exposure to extreme cold 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. Exposure to extreme heat carries risks for workers of all ages. These include collapse	Depending on the findings of the risk assessment, the provision of appropriate protective clothing and control of periods of exposure will help to minimise the risk. Any intended exposure to heat must be carefully assessed and the risks can be minimised by



	<p>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>measures such as introducing suitable work patterns, prior medical assessment of workers and proper supervision of the work.</p>
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RELEVANT AGREEMENTS

A relevant agreement is defined in the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Employment of Young Persons) Regulations 1998 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 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 collective agreement, and whether or not a schedule of hours of work is in place under the Merchant Shipping (Working Time) (Sea Fishing) Regulations 2004 as amended and MSN 1884(F). 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) be 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:



- (i) by all the representatives of the members of the workforce or group of workers or
 - (ii) if there are 20 workers or fewer employed by the company, either by all the representatives of the workforce or by the 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. However it would have to be made clear to those voting that the representatives were being elected for both purposes.

