

---

STATUTORY INSTRUMENTS

---

**2010 No. 2987**

**The Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Artificial Optical Radiation) Regulations 2010**

**PART 1**

**GENERAL**

**Citation and commencement**

1. These Regulations may be cited as the Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Artificial Optical Radiation) Regulations 2010 and they come into force on 10th January 2011.

**Interpretation**

2.—(1) In these Regulations—

“the Act” means the Merchant Shipping Act 1995;

“artificial” in relation to optical radiation means from a source other than the sun;

“the CEN” means the European Committee for Standardisation;

“the CIE” means the International Commission on Illumination;

“competent persons” has the meaning given in regulation 2(2) (Interpretation) of the General Duties Regulations;

“the Directive” means Council Directive [2006/25/EC](#) of 5 April 2006<sup>(1)</sup> on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation)(nineteenth individual Directive within the meaning of Article 16(1) of Directive [89/391/EEC](#));

“employer” means a person by whom a worker is employed on a ship under a contract of employment;

“exposure” means exposure at work to artificial sources of optical radiation and “exposed” is to be interpreted accordingly;

“exposure limit values” mean—

(a) for non-coherent radiation those values set out in Annex 1 to the Directive; and

(b) for laser radiation those values set out in Annex II to the Directive;

“the General Duties Regulations” means the Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997<sup>(2)</sup>;

“Government ship” has the meaning given in section 308(4) of the Act;

---

(1) O.J. L No. 114, 27.4.2006, p. 38.

(2) [S.I. 1997/2962](#), amended by [S.I. 1998/2411](#) and [2001/54](#).

“health and safety” includes the occupational health and safety of persons whilst on board a ship and whilst boarding or leaving the ship;

“health surveillance” means the assessment of an individual worker to determine the state of health of that individual, as related to exposure;

“the IEC” means the International Electrotechnical Commission;

“infrared radiation” means optical radiation of wavelength range exceeding 780 nm and not exceeding 1 mm, divided into IRA (exceeding 780 and not exceeding 1400 nm), IRB (exceeding 1400 and not exceeding 3000 nm) and IRC (exceeding 3000 nm and not exceeding 1 mm);

“irradiance” means the radiant power incident per unit area upon a surface expressed in watts per square metre ( $\text{W m}^{-2}$ );

“laser” (light amplification by stimulated emission of radiation) means any device which can be made to produce or amplify electromagnetic radiation in the optical radiation wavelength range primarily by the process of controlled stimulated emission;

“laser radiation” means optical radiation from a laser;

“level of exposure” means the combination of irradiance, radiant exposure and radiance to which a worker is exposed;

“MCA” means the Maritime and Coastguard Agency, an executive agency of the Department for Transport;

“measure” means, in respect of a regulation 6 assessment, either to measure or calculate, or measure and calculate as appropriate, and “measurement” is to be interpreted accordingly;

“Merchant Shipping Notice” means a notice described as such and issued by the MCA;

“non-coherent radiation” means any optical radiation other than laser radiation;

“optical radiation” means any electromagnetic radiation in the wavelength range exceeding 100 nm and not exceeding 1 mm, across the spectrum of optical radiation from ultraviolet radiation through visible radiation to infrared radiation;

“radiance” means the radiant flux or power output per unit solid angle per unit area, expressed in watts per square metre per steradian ( $\text{W m}^{-2} \text{sr}^{-1}$ );

“radiant exposure” means the time integral of the irradiance, expressed in joules per square metre ( $\text{J m}^{-2}$ );

“regulation 6 assessment” has the meaning given by regulation 6(9);

“representative” in relation to workers means any person lawfully elected, chosen or designated to represent the workers in regard to issues about the health and safety of workers at work;

“ship” includes hovercraft;

“surveyor of ships” has the meaning given by section 256(9) of the Act;

“ultraviolet radiation” is optical radiation of wavelength range exceeding 100 nm and not exceeding 400 nm, divided into UVA (exceeding 315 and not exceeding 400 nm), UVB (exceeding 280 and not exceeding 315 nm) and UVC (exceeding 100 and not exceeding 280 nm);

“United Kingdom ship” means a ship which—

- (a) is a United Kingdom ship within the meaning of section 85(2) of the Act,
- (b) is a Government ship or
- (c) a hovercraft registered under the Hovercraft Act 1968(3);

“United Kingdom waters” means the sea or other waters within the seaward limits of the territorial sea of the United Kingdom; and

“visible radiation” means optical radiation of wavelength range exceeding 380 nm and not exceeding 780 nm.

(2) In these Regulations any reference to an Annex to the Directive is a reference to that Annex as amended from time to time.

(3) Subject to paragraph (1) and regulation 3, words and expressions used in these Regulations have the same meaning as in the Directive.

(4) In the application of these Regulations to a hovercraft, a reference to the master of a ship includes a reference to the captain of that hovercraft.

### **Meaning of “worker”**

3.—(1) In these Regulations, “worker” means a person employed under a contract of employment, and includes a trainee or apprentice other than a person who is training in a vessel which is being used—

- (a) to provide instruction in the principles of responsibility, resourcefulness, loyalty and team endeavour and to advance education in the art of seamanship; or
- (b) to provide instruction in navigation and seamanship for yachtsmen,

and which is operating under a relevant code.

(2) In paragraph (1) “a relevant code” means—

- (a) the Large Commercial Yacht Code as set out in Merchant Shipping Notice No. 1792(M), issued by the MCA;
- (b) the Code of Practice for the Safety of Small Commercial Sailing Vessels(4);
- (c) the Code of Practice for the Safety of Small Commercial Motor Vessels(5); or
- (d) the Code of Practice for the Safety of Small Vessels in Commercial Use for Sport or Pleasure Operating from a Nominated Departure Point(6).

(3) In paragraph (2) each reference to a Code includes a reference to any document containing an amendment or replacement of that Code which is considered by the Secretary of State to be relevant from time to time and is specified in a Merchant Shipping Notice which contains a statement to that effect.

### **Application**

4.—(1) Without prejudice to regulation 5 (general duties) of the General Duties Regulations, and subject to paragraphs (2) to (4), these Regulations apply in relation to activities in which workers are subject or are potentially subject to exposure, giving rise to risks to their health and safety, which take place on United Kingdom ships.

(2) Where—

- (a) a ship is being used in the course of public service activities or activities for the purposes of the civil protection services, and
- (b) characteristics peculiar to those activities inevitably conflict with a provision of these Regulations,

that provision does not apply in relation to activities on that ship to the extent of that conflict.

---

(4) Published by the Stationery Office in 1993 (ISBN 0-11-551184-9).

(5) Published by the Stationery Office in 1993 (ISBN 0-11-551185-7).

(6) Published by the Stationery Office in 1999 (ISBN 0-11-551812-6).

(3) To the extent that a provision of these Regulations does not apply in relation to activities on a ship because of paragraph (2) there is in relation to that ship a duty on the employer to ensure, so far as is reasonably practicable, the health and safety of the workers who are subject or are potentially subject to exposure on the ship.

(4) This regulation (other than paragraph (1)) and regulations 5, 15 and 17 apply in relation to activities on ships other than United Kingdom ships, which are for the time being in United Kingdom waters, during which workers are subject or are potentially subject to exposure, giving rise to risks to their health and safety.

(5) In paragraph (2)—

- (a) “civil protection service” includes the fire and rescue and ambulance services and search and rescue services provided by any other person; and
- (b) “public service activities” includes the activities of the armed forces, HM Coastguard, HM Revenue and Customs, immigration officers, police, prison officers and the security and intelligence services.

#### **Application of related legislation**

5.—(1) The General Duties Regulations continue to apply to activities to which these Regulations apply, without prejudice to any more stringent or specific provisions contained in these Regulations.

(2) These Regulations do not apply to or in relation to the activities of a worker which are covered by the Control of Artificial Optical Radiation at Work Regulations 2010(7) or the Control of Artificial Optical Radiation at Work (Northern Ireland) Regulations 2010(8).

---

(7) S.I. 2010/1140.

(8) S.R. 2010/210.