STATUTORY RULES OF NORTHERN IRELAND

2010 No. 180

HEALTH AND SAFETY

The Control of Artificial Optical Radiation at Work Regulations (Northern Ireland) 2010

Made - - - -	*14th May 2010*
Coming into operation	*14th June 2010*

The Department of Enterprise, Trade and Investment(**1**), being the Department concerned(**2**), makes the following Regulations in exercise of the powers conferred by Articles 17(1), (2) and (4)(**3**) and 55(2) of, and paragraphs 1(1), 7, 8, 10, 11, 12(2) and (3), 13, 14(1) and 15 of Schedule 3 to, the Health and Safety at Work (Northern Ireland) Order 1978(**4**) ("the 1978 Order"), as read with paragraph 1A of Schedule 2 to the European Communities Act 1972(**5**) ("the 1972 Act").

The Regulations give effect without modifications to proposals submitted to it by the Health and Safety Executive for Northern Ireland under Article 13(1A) of the 1978 Order(**6**) after the Executive had carried out consultations in accordance with Article 46(3)(**7**).

These Regulations make provision for a purpose mentioned in section 2(2) of the 1972 Act and it appears to the Department of Enterprise, Trade and Investment that it is expedient for references in these Regulations to Annexes to Directive 2006/25/EC(**8**) of the European Parliament and of the Council on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation) (19th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)(**9**) to be construed as including references to those Annexes as amended from time to time.

(**1**) Formerly the Department of Economic Development; see S.I. 1999/283 (N.I. 1), Article 3(5); that Department was formerly the Department of Manpower Services, see S.I. 1982/846 (N.I. 11), Article 3
(**2**) See Article 2(2) of S.I. 1978/1039 (N.I. 9)
(**3**) Article 17 must be read with S.I. 1992/1728 (N.I. 17), Articles 3(2) and 4(2)
(**4**) S.I. 1978/1039 (N.I. 9): the general purposes of Part II referred to in Article 17(1) were extended by S.I. 1992/1728 (N.I. 17), Articles 3(1) and 4(1). Article 55(2) was amended by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1, paragraph 19
(**5**) 1972 c. 68, paragraph 1A of Schedule 2 was inserted by section 28 of the Legislative and Regulatory Reform Act 2006 (c. 51)
(**6**) Article 13(1A) was substituted by S.I. 1998/2795 (N.I. 18), Article 4
(**7**) Article 46(3) was amended by S.I. 1998/2795 (N.I. 18), Article 6(1) and Schedule 1, paragraphs 8 and 18 and the Health Protection Agency Act 2004 (c. 17), Schedule 3, paragraph 10
(**8**) O.J. No. L114, 27.4.2006, p.38, as amended by Directive 2007/30/EC of 20 June 2007 (O.J. No. L165, 27.6.2007, p.21) and by Regulation (EC) No. 1137/2008 of 22 October 2008 (O.J. No. L311, 21.11.2008, p.1)
(**9**) O.J. No. L183, 29.6.1989, p 1-8

Citation, commencement and interpretation

1.—(1) These Regulations may be cited as the Control of Artificial Optical Radiation at Work Regulations (Northern Ireland) 2010 and shall come into operation on 14th June 2010.

(2) In these Regulations—

"the 2000 Regulations" means the Management of Health and Safety at Work Regulations (Northern Ireland) 2000(**10**);

"artificial optical radiation" means any electromagnetic radiation in the wavelength range between 100nm and 1mm which is emitted by non-natural sources;

"the Directive" means Directive 2006/25/EC of the European Parliament and of the Council on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation) (19th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC), and references in these Regulations to the Annexes to the Directive are to those Annexes as amended from time to time;

"enforcing authority" means the Health and Safety Executive for Northern Ireland or district council, determined in accordance with the provisions of the Health and Safety (Enforcing Authority) Regulations (Northern Ireland) 1999(**11**);

"the exposure limit values" means—

(a) for non-coherent radiation, those exposure limit values set out in Annex 1 of the Directive; and

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

"health surveillance" means assessment of the state of health of an employee, as related to exposure to artificial optical radiation and its effects on the skin;

"irradiance" means the radiant power incident per unit area upon a surface expressed in watts per square metre (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 artificial optical radiation from a laser;

"non-coherent radiation" means any artificial optical radiation other than laser radiation;

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

"radiant exposure" means the time integral of the irradiance, expressed in joules per square metre (J m^{-2}); and

"territorial sea" means the territorial sea of the United Kingdom adjacent to Northern Ireland and "within the territorial sea" includes on, over and under it.

(3) Where a word or expression is defined in the Directive and is not defined in these Regulations, it has the meaning as in the Directive.

(4) A reference to an employee being exposed to artificial optical radiation is a reference to that exposure which arises while the employee is at work, or arises out of, or in connection with, the employee's work.

(**10**) S.R. 2000 No. 388 amended by S.R. 2001 No. 348, S.R. 2003 No. 454, S.R 2006 No. 255 and revoked in part by S.R. 2007 No. 291

(**11**) S.R. 1999 No. 90 amended by S.R. 2000 No. 375, S.R. 2003 No. 33, S.R. 2006 No. 205, S.R. 2006 No. 425, S.R. 2007 No. 31, S.R. 2007 No. 291 and S.R. 2009 No. 238

(5) The Interpretation Act (Northern Ireland) 1954(**12**) shall apply to these Regulations as it applies to an Act of the Northern Ireland Assembly.

Application

2.—(1) Where a duty is placed by these Regulations on an employer in respect of its employees, the employer shall, so far as is reasonably practicable, be under a like duty in respect of any other person at work who may be affected by the work carried out by the employer except that the duties of the employer—

(a) under regulation 5 (information and training) do not extend to persons who are not its employees, unless those persons are present in the workplace where the work is being carried out; and

(b) under regulation 6 (health surveillance and medical examinations) do not extend to persons who are not its employees.

(2) These Regulations do not apply to the master of a crew of a ship or the employer of such persons in respect of the normal shipboard activities of a ship's crew which are carried out solely by the crew under the direction of the master, and for the purposes of this paragraph "ship" includes every description of vessel used in navigation, other than a ship forming part of Her Majesty's Navy.

Assessment of the risk of adverse health effects to the eyes or skin created by exposure to artificial optical radiation at the workplace

3.—(1) Where—

(a) the employer carries out work which could expose any of its employees to levels of artificial optical radiation that could create a reasonably foreseeable risk of adverse health effects to the eyes or skin of the employee; and

(b) that employer has not implemented any measures to either eliminate or, where this is not reasonably practicable, reduce to as low a level as is reasonably practicable, that risk based on the general principles of prevention set out in Schedule 1 to the 2000 Regulations,

the employer shall make a suitable and sufficient assessment of that risk for the purpose of identifying the measures it needs to take to meet the requirements of these Regulations.

(2) The employer shall as part of that risk assessment assess, and if necessary, measure or calculate, the levels of artificial optical radiation to which employees are likely to be exposed.

(3) In carrying out the assessment, measurement or calculation, the employer shall follow the following standards or recommendations—

(a) for laser radiation, the standards of the IEC; or

(b) for non-coherent radiation, the standards of the IEC and the recommendations of the CIE and the CEN.

(4) In exposure situations which are not covered by those standards or recommendations, the assessment, measurement or calculations shall follow national or international science-based guidelines.

(5) The assessment shall also include consideration of—

(a) the level, wavelength and duration of exposure;

(b) the exposure limit values;

(c) the effects of exposure on employees or groups of employees whose health is at particular risk from exposure;

(**12**) 1954 c. 33 (N.I.), as amended by S.I. 1999/663

(d) any possible effects on the health and safety of employees resulting from interactions between artificial optical radiation and photosensitising chemical substances;

(e) any indirect effects on exposure on the health and safety of employees such as temporary blinding, explosion or fire;

(f) the availability of alternative equipment designed to reduce levels of exposure;

(g) appropriate information obtained from health surveillance, including where possible published information;

(h) multiple sources of exposure;

(i) any class 3B or 4 laser that is classified in accordance with the relevant IEC standard that is in use by the employer and any artificial optical radiation source that is capable of presenting the same level of hazard; and

(j) information provided by the manufacturers of artificial optical radiation sources and associated work equipment in accordance with the relevant European Union Directives.

(6) The risk assessment shall be reviewed regularly if—

(a) there is reason to suspect that it is no longer valid; or

(b) there has been a significant change in the work to which the assessment relates.

(7) The employer shall record—

(a) the significant findings of the risk assessment as soon as is practicable after it is made or changed; and

(b) the measures which have been taken and which the employer intends to take to meet the requirements of regulation 4 and 5.

(8) In paragraphs (3) and (4)—

(a) a reference to standards or recommendations is a reference to standards or recommendations as revised or re-issued from time to time;

(b) "CEN" means the European Committee for Standardisation;

(c) "CIE" means the International Commission for Illumination; and

(d) "IEC" means the International Electrotechnical Commission.

(9) In paragraph (5)(a) "level" means the combination of irradiance, radiant exposure and radiance to which an employee is exposed.

Obligations to eliminate or reduce risks

4.—(1) An employer shall ensure that any risk of adverse health effects to the eyes or skin of employees as a result of exposure to artificial optical radiation which is identified in the risk assessment is eliminated or, where this is not reasonably practicable, reduced to as low a level as is reasonably practicable.

(2) For the purposes of paragraph (1) measures to eliminate or reduce the risk shall be based on the general principles of prevention set out in Schedule 1 to the 2000 Regulations.

(3) If the risk assessment indicates that employees are exposed to levels of artificial optical radiation which exceed the exposure limit values, the employer shall devise and implement an action plan comprising technical and organisational measures designed to prevent exposure exceeding the exposure limit values.

(4) The action plan shall take into account—

(a) other working methods;

(b) choice of appropriate work equipment emitting less artificial optical radiation;

(c) technical measures to reduce the emission of artificial optical radiation including, where necessary, the use of interlocks, shielding or similar health protection mechanisms;

(d) appropriate maintenance programmes for work equipment, workplaces and workstation systems;

(e) the design and layout of workplaces and workstations;

(f) limitation of the duration and level of the exposure;

(g) the availability of personal protective equipment;

(h) the instructions of the manufacturer of the equipment where it is covered by relevant European Union Directives; and

(i) the requirements of employees belonging to particularly sensitive risk groups.

(5) If, despite the measures taken under paragraphs (1) and (3), employees are still exposed to levels of artificial optical radiation that exceed the exposure limit values, the employer shall take immediate action to—

(a) reduce exposure to below the exposure limit values;

(b) identify the reasons why employees have been exposed to levels which exceed the exposure limit values; and

(c) modify the measures taken in accordance with paragraph (3) to prevent employees being exposed again to levels which exceed the exposure limit values.

(6) Paragraph (7) applies if the risk assessment indicates that in any of the areas of the workplace under the control of the employer, employees could be exposed to levels of artificial optical radiation which exceed the exposure limit values.

(7) The employer shall ensure that the areas in question are—

(a) demarcated and access by the employees to those areas is restricted so far as is reasonably practicable; and

(b) identified by means of the appropriate signs as specified in the Health and Safety (Safety Signs and Signals) Regulations (Northern Ireland) 1996(**13**).

Information and training

5.—(1) If the risk assessment indicates that employees could be exposed to artificial optical radiation which could cause adverse health effects to the eyes or skin of employees, the employer shall provide its employees and representatives with suitable and sufficient information and training relating to the outcome of the risk assessment, and this shall include the following—

(a) the technical and organisational measures taken in order to comply with the requirements of regulation 4;

(b) the exposure limit values;

(c) the significant findings of the risk assessment, including any measurements taken, with an explanation of those findings;

(d) why and how to detect and report adverse health effects to the eyes or skin;

(e) the circumstances in which employees are entitled to appropriate health surveillance;

(f) safe working practices to minimise the risk of adverse health effects to the eyes or skin from exposure to artificial optical radiation; and

(g) the proper use of personal protective equipment.

(**13**) S.R. 1996 No. 119 amended by S.R. 1997 No. 247, S.R. 1999 No. 150, S.R. 2000 No. 388, S.R. 2006 No. 173 and revoked in part by S.R. 2006 No. 1