
STATUTORY INSTRUMENTS

2016 No. 588

The Control of Electromagnetic
Fields at Work Regulations 2016

PART 1

INTRODUCTION

Citation and commencement

1. These Regulations may be cited as the Control of Electromagnetic Fields at Work Regulations 2016 and come into force on 1st July 2016.

Interpretation

2.—(1) In these Regulations—

“the 1974 Act” means the Health and Safety at Work etc. Act 1974;

“AL” means an action level set out in Parts 2 and 3 of the Schedule;

“direct biophysical effect” means an effect on human body tissue caused by its presence in an electromagnetic field;

“electromagnetic field” means a static electric, static magnetic and time-varying electric, magnetic and electromagnetic field with a frequency of up to 300 GHz;

“ELV” means an exposure limit value set out in Part 2 of the Schedule;

“employee at particular risk” means—

(a) an employee who has declared to his or her employer a condition which may lead to a higher susceptibility to the potential effects of exposure to electromagnetic fields; or

(b) an employee who works in close proximity to electro-explosive devices, explosive materials or flammable atmospheres;

“health effect” means a direct biophysical effect which is potentially harmful to human health;

“indirect effect” means an effect, caused by the presence of an object or a substance in an electromagnetic field, which may present a safety or health hazard;

“sensory effect” means a direct biophysical effect involving a transient disturbance in sensory perception or a minor and temporary change in brain function.

(2) In these Regulations a reference to employees is, in relation to an employer, to be treated as a reference to the employees of that employer while they are at work.

Application

3. These Regulations do not apply to the master or crew of a ship or to 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 regulation “ship” includes every description of vessel used in navigation, other than a ship forming part of Her Majesty’s Navy.

PART 2

EXPOSURE AND RISK

Limitation on exposure to electromagnetic fields

4.—(1) Subject to paragraphs (2) and (3), an employer must ensure that employees are not exposed to electromagnetic field levels in excess of the ELVs.

(2) Exposure may exceed the sensory effect ELVs during work activities in respect of which the employer has taken the applicable safety measures set out in the Schedule(1).

(3) Paragraph (1) does not apply in relation to—

(a) any activity in respect of which a suitable and sufficient exposure limitation system is in place, where that activity is carried out—

(i) by a person acting in the capacity of a member of either Her Majesty’s armed forces or a visiting force;

(ii) by any civilian working with such a person; or

(iii) on any premises or part of premises under the control of the Secretary of State for the purposes of the Ministry of Defence or the service authorities of a visiting force; or

(b) the development, testing, installation, use and maintenance of, or research related to, magnetic resonance imaging equipment for patients in the health sector, where—

(i) the exposure of employees to electromagnetic fields is as low as is reasonably practicable; and

(ii) employees are protected against any health effects and safety risks related to that exposure.

(4) In paragraph (2), “sensory effect ELVs” means the sensory effect ELVs set out in Part 2 of the Schedule.

(5) In paragraph (3)(a)—

“Her Majesty’s armed forces” means the regular forces and the reserve forces as defined in section 374 of the Armed Forces Act 2006(2);

“service authorities” and “visiting force” have the meaning given in section 12 of the Visiting Forces Act 1952(3).

Exposure assessment

5.—(1) The employer must make a suitable and sufficient assessment of the levels of electromagnetic fields to which employees may be exposed.

(2) Where regulation 4(1) applies—

(a) the assessment must demonstrate whether that regulation is complied with, if necessary through the use of calculations and measurements; and

(1) See paragraph 6 of Part 1 of the Schedule.

(2) 2006 c.52. The definition of “the reserve forces” was amended by section 44 of the Defence Reform Act 2014 (c.20).

(3) 1952 c.67. The definition of “visiting force” was amended by paragraph 14 of Schedule 15 to the Criminal Justice Act 1988 (c.33).

- (b) the employer may, in accordance with the Schedule(4), assess exposure against the ALs in order to determine that specific ELVs are not exceeded.
- (3) The assessment may take into account—
 - (a) emission information and other safety related data provided by the manufacturer or distributor of equipment;
 - (b) industry standards and guidelines;
 - (c) guidance produced by the European Commission; and
 - (d) guidance produced by the Executive.
- (4) The employer must review the assessment when—
 - (a) there is reason to suspect it is no longer valid; or
 - (b) there has been a significant change in the matters to which it relates,and make such changes to it as are necessary to ensure it remains suitable and sufficient.

Application of regulations 7 to 9

- 6.—(1) Regulation 7 does not apply—
 - (a) where the most recent exposure assessment under regulation 5 demonstrates compliance with regulation 4(1); or
 - (b) in relation to activities set out in regulation 4(3).
- (2) Regulations 8 and 9 do not apply where—
 - (a) the most recent exposure assessment under regulation 5 demonstrates that employees are not exposed to electromagnetic field levels in excess of the ELVs;
 - (b) the indirect effect ALs are not exceeded; and
 - (c) there are no employees at particular risk.
- (3) In paragraph (2)(b), “indirect effect ALs” means the Low ALs in Table AL1, and the ALs in Tables AL5 to AL7, in the Schedule.

Action plan

- 7.—(1) The employer must make and implement a suitable and sufficient action plan to ensure compliance with regulation 4(1).
- (2) The action plan must include consideration of, where relevant—
 - (a) other working methods that entail lower exposure to electromagnetic fields;
 - (b) replacement equipment designed to reduce the level of exposure;
 - (c) technical measures to reduce the emission of electromagnetic fields, including, where necessary, the use of interlocks, screening or similar health protection mechanisms;
 - (d) demarcation and access control measures;
 - (e) maintenance programmes for work equipment, workplaces and workstation systems;
 - (f) the design and layout of workplaces and workstations;
 - (g) limitations on the duration and intensity of exposure; and
 - (h) the availability of suitable personal protective equipment.

(4) See paragraphs 3 and 4 of Part 1 of the Schedule.

(3) Where, despite the measures taken under paragraph (1), the exposure of employees exceeds any ELV the employer must, as soon as is reasonably practicable, identify and implement any changes to the action plan which are necessary to ensure compliance with regulation 4(1).

Risk assessment

8.—(1) The employer must make a suitable and sufficient assessment of the risks to employees arising from their exposure to electromagnetic fields.

(2) The risk assessment must include consideration of, where relevant—

- (a) the ALs and ELVs;
- (b) the frequency range, level, duration and type of exposure, including its distribution over the employee's body and the workplace;
- (c) direct biophysical effects;
- (d) replacement equipment designed to reduce the level of exposure;
- (e) information obtained from any health surveillance or medical examinations provided under regulation 11;
- (f) information provided by the manufacturer or distributor of equipment;
- (g) multiple sources of exposure;
- (h) simultaneous exposure to multiple frequency fields;
- (i) indirect effects;
- (j) any effects on employees at particular risk; and
- (k) other health and safety related information.

(3) The risks referred to in paragraph (1) do not include the risk of effects—

- (a) caused by contact with live conductors;
- (b) caused by multiple and separate instances of exposure; or
- (c) which continue to develop when exposure has ceased.

(4) The employer must review the assessment when—

- (a) there is reason to suspect it is no longer valid; or
- (b) there has been a significant change in the matters to which it relates,

and make such changes to it as are necessary to ensure it remains suitable and sufficient.

Obligation to eliminate or reduce risks

9.—(1) The employer must ensure that, so far as is reasonably practicable, the risks identified in the most recent risk assessment under regulation 8 are eliminated or reduced to a minimum.

(2) Measures taken under paragraph (1) must—

- (a) be based on the general principles of prevention set out in Schedule 1 to the Management of Health and Safety at Work Regulations 1999⁽⁵⁾; and
- (b) take into account technical progress, the potential to restrict access to parts of the workplace, and the availability of measures to control the production of electromagnetic fields at source.

(5) [S.I. 1999/3242](#), to which there are amendments not relevant to these Regulations.

PART 3

MISCELLANEOUS

Information and training

10. The employer must provide relevant information and training to any employees who are likely to be subjected to the risks identified in the most recent risk assessment under regulation 8, including in relation to—

- (a) the measures taken under regulation 9;
- (b) the concepts and values of the ALs and ELVs and the possible risks associated with them;
- (c) the possible indirect effects of exposure;
- (d) the results of the most recent exposure assessment under regulation 5;
- (e) how to detect and report sensory and health effects;
- (f) the circumstances in which employees are entitled to health surveillance and medical examinations under regulation 11;
- (g) safe working practices; and
- (h) any additional measures taken in respect of employees at particular risk.

Health surveillance and medical examinations

11.—(1) The employer must ensure that health surveillance and medical examinations are provided as appropriate to any employee who—

- (a) is exposed to electromagnetic field levels in excess of the health effect ELVs; and
- (b) reports experiencing a health effect to that employer.

(2) Any health surveillance or medical examinations must be provided during any reasonable hours chosen by the employee.

(3) The employer must keep a suitable record of any health surveillance and medical examinations provided.

(4) In paragraph (1)(a), “health effect ELVs” means the health effect ELVs set out in Part 2 of the Schedule.

Records

12. An employer who employs five or more employees must—

- (a) record the significant findings of the most recent exposure assessment under regulation 5; and
- (b) where required to make them, record—
 - (i) the most recent action plan under regulation 7; and
 - (ii) the significant findings of the most recent risk assessment under regulation 8.

Exemptions

13.—(1) The Executive may by a certificate in writing exempt employers from the requirements of regulations 4(1) and 7 in relation to one or more work activities.

(2) An exemption under paragraph (1) must be limited in time and subject to the conditions that—

- (a) the exposure of employees to electromagnetic fields is as low as is reasonably practicable; and
 - (b) employees are protected against any health effects and safety risks related to that exposure.
- (3) The Executive may amend or revoke an exemption at any time by a further certificate in writing.

Application outside Great Britain

14. These Regulations apply outside Great Britain as sections 1 to 59 and 80 to 82 of the 1974 Act apply by virtue of the Health and Safety at Work etc. Act 1974 (Application outside Great Britain) Order 2013(6).

Review

- 15.—(1) The Secretary of State must from time to time—
- (a) carry out a review of these Regulations;
 - (b) set out the conclusions of the review in a report; and
 - (c) publish the report.
- (2) In carrying out the review the Secretary of State must, so far as is reasonable, have regard to how the Directive is implemented in other Member States.
- (3) The report must in particular—
- (a) set out the objectives intended to be achieved by the Directive and by these Regulations;
 - (b) assess the extent to which those objectives are achieved; and
 - (c) assess whether those objectives remain appropriate and, if so, the extent to which they could be achieved with a system that imposes less regulation.
- (4) The first report under this regulation must be published before the end of the period of five years beginning with the day on which these Regulations come into force.
- (5) Reports under this regulation must afterwards be published at intervals not exceeding five years.
- (6) In paragraphs (2) and (3), “the Directive” means [Directive 2013/35/EU](#)(7) of the European Parliament and of the Council of 26 June 2013 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) (20th individual Directive within the meaning of Article 16(1) of [Directive 89/391/EEC](#)) and repealing [Directive 2004/40/EC](#).

Signed by authority of the Secretary of State for Work and Pensions

17th May 2016

Justin Tomlinson
Parliamentary Under Secretary of State,
Department of Work and Pensions

(6) [S.I. 2013/240](#).

(7) [OJ No L 179, 29.6.2013, p1-21](#).