

STATUTORY INSTRUMENTS.

S.I. No. 370 of 2006

Safety, Health and Welfare at Work (Control of Vibration at Work) Regulations

2006

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Regulations 2006

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S.I. No. 370 of 2006
Safety, Health and Welfare at Work (Control of Vibration at Work)
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I, Tony Killeen, Minister of State at the Department of Enterprise, Trade and Employment, in exercise of the powers conferred on me by section 58 of the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005) and the Enterprise, Trade and Employment)(Delegation of Ministerial Functions) Order 2005 (S.I. No. 316 of 2005) and for the purpose of giving effect to Directive 2002/44/EC of the European Parliament and of the Council of 25 June 2002¹, after consultation with the Health and Safety Authority, hereby make the following regulations:

Citation and Commencement

1. These Regulations may be cited as the Safety, Health and Welfare at Work (Control of Vibration at Work) Regulations 2006 and, subject to the transitional periods in Regulation 9, shall come into operation on their making.

Interpretation

2. (1) In these Regulations -

“Act” means the Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005);

“Authority” means the Health and Safety Authority as defined in Part 5 of the Act;

¹ O.J. No. L 177, 6.7.2002, p. 13

“Directive” means Directive 2002/44/EC of the European Parliament and of the Council of 25 June 2002¹;

“exposure action value” means the level of daily exposure for any employee which, if exceeded, requires specified action to be taken to reduce risk;

“exposure limit value” means the level of daily exposure for any employee which must not be exceeded, save as set out in Regulation 10 (2);

“hand-arm vibration” means mechanical vibration that, when transmitted to the human hand-arm system, entails risks to the safety and health of employees, in particular vascular, bone or joint, neurological or muscular disorders;

“mechanical vibration” means vibration occurring in a piece of machinery or equipment, or in a vehicle as a result of its operation;

“whole-body vibration” means the mechanical vibration that, when transmitted to the whole body, entails risks to the safety and health of employees, in particular lower-back morbidity and trauma of the spine.

(2) A word or expression that is used in these Regulations and is also used in the Directive has, unless the contrary intention appears, the same meaning in these Regulations as in the Directive.

Application

3. These Regulations shall apply to activities in which employees are or are likely to be exposed to risks to their safety and health arising from exposure to mechanical vibration during their work.

Exposure Limit Values and Action Values

4. (1) For hand-arm vibration -

(a) the daily exposure limit value standardised to an eight-hour reference period shall be 5m/s^2 ,

(b) the daily exposure action value standardised to an eight-hour reference period shall be 2.5 m/s^2 , and

(c) exposure shall be assessed or measured on the basis set out in Part 1 of the Schedule.

(2) For whole-body vibration -

(a) the daily exposure limit value standardised to an eight-hour reference period shall be 1.15 m/s^2 ,

(b) the daily exposure action value standardised to an eight-hour reference period shall be 0.5 m/s^2 , and

(c) exposure shall be assessed or measured on the basis set out in Part 2 of the Schedule.

Determination and Assessment of Risks

5. (1) Without prejudice to the requirements of sections 19 and 20 of the Act, where employees are exposed to mechanical vibration, an employer shall make a suitable and appropriate assessment of the risk arising from such exposure.

(2) In carrying out the risk assessment referred to in paragraph (1), an employer shall assess daily exposure to mechanical vibration by means of -

(a) observation of specific working practices,

(b) reference to relevant information on the probable level of the vibration corresponding to the equipment or the types of equipment used in the particular working conditions, including reference to information provided by the manufacturer of the equipment, and

(c) if necessary, measurement of the magnitude of mechanical vibration to which his or her employees are liable to be exposed, and any such measurement shall be carried out on the basis set out in the Schedule.

(3) An employer shall be responsible for the assessment referred to in paragraphs (1) and (2) being planned and competently carried out at suitable intervals.

(4) An employer shall give particular attention when carrying out the risk assessment under this Regulation to the following -

(a) the level, type and duration of exposure, including any exposure to intermittent vibration or repeated shocks,

(b) the exposure limit values and the exposure action values specified in Regulation 4,

(c) the effects of exposure to vibration on employees whose safety or health is at particular risk from such exposure,

(d) any indirect effects on employee safety or health resulting from interactions between mechanical vibration and the place of work or other work equipment,

(e) any information provided by the manufacturers of work equipment in compliance with section 16 of the Act,

(f) the existence of replacement equipment designed to reduce exposure to mechanical vibration,

(g) the extension of exposure to whole-body vibration beyond normal working hours under the employer's responsibility,

(h) specific working conditions such as low temperatures, and

(i) appropriate information obtained from health surveillance including, where possible, published information.

(5) An employer shall record in the safety statement drawn up pursuant to section 20 of the Act -

(a) the findings of the risk assessment as soon as it is practicable after it is made, and

(b) the steps which he or she has taken to meet the requirements of Regulations 6, 7 and 8.

(6) The assessment and if necessary measurement referred to in paragraph (2) shall be reviewed at suitable intervals and, in particular, where either of the conditions specified in section 19(3), indents (a) and (b), of the Act are met.

Provisions aimed at Avoiding or Reducing Exposure

6. (1) Having regard to the general principles of prevention in Schedule 3 to the Act, an employer shall ensure so far as is reasonably practicable that risk from the exposure of his or her employees to mechanical vibration is either eliminated at source or reduced to a minimum.

(2) If the risk assessment indicates that an exposure action value is exceeded, an employer shall comply with the duty to reduce exposure to mechanical vibration and attendant risks to a minimum under paragraph (1) by establishing and implementing a programme of technical or organisational measures (or both) appropriate to the activity and consistent with the risk assessment, taking into account in particular -

(a) other methods of work which reduce exposure to mechanical vibration,

(b) the choice of work equipment of appropriate ergonomic design which, taking account of the work to be done, produces the least possible vibration,

(c) the provision of auxiliary equipment which reduces the risk of injuries caused by vibration, such as seats that effectively reduce whole-body vibration and handles which reduce the vibration transmitted to the hand-arm system,

(d) appropriate maintenance programmes for work equipment, the places of work, workstations and systems of work,

- (e) the design and layout of places of work and workstations,
- (f) adequate information and training to instruct employees to use work equipment correctly, safely and without risk to health in order to reduce their exposure to mechanical vibration to a minimum,
- (g) limitation of the duration and intensity of exposure to mechanical vibration,
- (h) appropriate work schedules with adequate rest periods, and
- (i) provision of clothing to protect employees exposed to cold and damp.

(3) Subject to Regulations 9 and 10, an employer shall ensure that-

(a) his or her employees are not exposed to mechanical vibration above the relevant exposure limit value, and

(b) if, despite the measures taken to comply with these Regulations, the exposure limit value is exceeded, he or she shall forthwith –

(i) take action to reduce exposure to mechanical vibration to below the exposure limit value,

(ii) identify the reason for that limit being exceeded, and

(iii) amend the technical and organisational measures taken in accordance with paragraph (2) to prevent it being exceeded again.

(4) An employer shall adapt any measure taken in compliance with this Regulation to take account of any employee who is at particular risk from mechanical vibration.

Employee Information and Training

7. Without prejudice to sections 9 and 10 of the Act, where employees are exposed to risk from mechanical vibration, an employer shall provide those employees or their safety representative (or both) with suitable and sufficient information, instruction and training, including -

(a) the technical and organisational measures taken in order to comply with these Regulations,

(b) the exposure limit values and the exposure action values,

(c) the results of the risk assessment and measurement of the mechanical vibration carried out in accordance with Regulation 5 and the potential injury arising from the work equipment in use,

(d) why and how to detect and report signs of injury,

(e) the circumstances in which health surveillance is made available to employees and its purpose, in accordance with Regulation 8, and

(f) safe working practices to minimise exposure to mechanical vibration.

Health Surveillance

8. (1) Without prejudice to section 22 of the Act, it shall be the duty of an employer to ensure that appropriate health surveillance is made available to those employees for whom a risk assessment referred to in Regulation 5 reveals a risk to their health, including employees exposed to mechanical vibration in excess of an exposure action value.

(2) Health surveillance, the results of which are taken into account in the application of preventive measures at a particular place of work, shall be intended to prevent or diagnose rapidly any disorder linked with exposure to mechanical vibration, and shall be regarded as being appropriate when -

(a) the exposure of an employee to mechanical vibration is such that an identifiable illness or adverse health effect may be related to the exposure,

(b) there is a reasonable likelihood that the illness or effect may occur under the particular conditions of his or her work, and

(c) there are valid low risk tested techniques available to the employee for detecting indications of the illness or the effect.

(3) An employer shall ensure that a health record in respect of each of his or her employees who undergoes health surveillance in accordance with paragraphs (1) or (2) is made and maintained and that that record or a copy thereof is kept available in a suitable form so as to permit appropriate access at a later date, taking into account any confidentiality concerns.

(4) An employer shall -

- (a) on request, allow an employee access to his or her personal health record,
- (b) provide the Authority with copies of such health records as the Authority may require, and
- (c) if he or she ceases to trade, notify the Authority forthwith in writing and make available to the Authority all health records kept by him or her in accordance with these Regulations.

(5) It shall be the duty of a registered medical practitioner under whose responsibility an employee receives health surveillance under this Regulation to -

- (a) keep an individual confidential medical record containing the results of the health surveillance and, where appropriate, medical examination carried out,

(b) ensure that such record or a copy thereof is kept in a suitable form for an appropriate time from the date of the last entry made in it,

(c) propose any protective or preventive measures necessary in respect of any individual employee,

(d) give access to an employee, upon request by that employee, to his or her own health surveillance records, and

(e) allow access to individual confidential medical records to a person who is designated under section 63(1) of the Act.

(6) Where as a result of health surveillance in accordance with this Regulation an employee is found to have an identifiable illness or adverse health effect which, in the opinion of a registered medical practitioner, is the result of exposure at work to mechanical vibration, the registered medical practitioner shall inform the employee of the result which relates to him or her personally, including information and advice regarding such health surveillance which he or she should undergo following the end of the exposure, and, shall inform the employer of that opinion .

(7) Where an undertaking ceases to trade, it shall be the duty of an employer to ensure that any health records are made available to the Authority.

(8) Where as a result of health surveillance in accordance with this Regulation an employee is found to have an identifiable illness or adverse health effect which, in

the opinion of a registered medical practitioner, is the result of exposure at work to mechanical vibration, the employer shall -

(a) review the risk assessment made under Regulation 5,

(b) review the measures provided to eliminate or reduce the risk under Regulation 6,

(c) take account of the advice of the registered medical practitioner or a relevant competent person, or an inspector, in implementing any measures required to eliminate or reduce risk in accordance with Regulation 6, including the possibility of assigning the affected employee to alternative work where there is no risk of further exposure, and

(d) arrange continued health surveillance and provide for a review of the health status of any employee who has been similarly exposed and take account of the recommendations of the registered medical practitioner or a relevant competent person regarding further medical examination.

Transitional Periods

9. (1) Subject to paragraph (2), Regulation 6(3) shall not apply until 6 July 2010 where work equipment is used which -

(a) was first provided to employees before 6 July 2007 by an employer, and

(b) does not permit compliance with the exposure limit values,

but in using such equipment an employer shall take into account the latest technical advances and the organisational measures taken in accordance with Regulation 6(2).

(2) Regulation 6(3) shall not apply until 6 July 2014 in respect of work equipment, which is used in the agriculture and forestry sectors only, which -

(a) was first provided to employees before 6 July 2007 by an employer, and

(b) does not permit compliance with the exposure limit values,

but in using such equipment an employer shall take into account the latest technical advances and the organisational measures taken in accordance with Regulation 6(2).

Exemptions

10. (1) Subject to paragraphs (3) and (4), the Authority may, by a certificate in writing, exempt any person or class of persons from Regulation 6(3) in duly justified circumstances in respect of whole-body vibration only in the case of sea and air transport, where the latest technical advances and the specific characteristics of the place of work do not permit compliance with the exposure limit value despite the technical and organisational measures taken.

(2) Subject to paragraphs (3) and (4), the Authority may, by a certificate in writing, exempt any person or class of persons from Regulation 6(3) where the

exposure of an employee to mechanical vibration is usually below the exposure action value but varies markedly from time to time and may occasionally exceed the exposure limit value, provided that -

(a) any exposure to mechanical vibration averaged over 40 hours in any one week is less than the exposure limit value, and

(b) there is evidence to show that the risk from the actual pattern of exposure is less than the corresponding risk from constant exposure at the exposure limit value.

(3) The Authority shall not grant any exemptions under this Regulation unless-

(a) it consults the employers and the employees concerned or their representatives, or both,

(b) it applies conditions to any such exemption, taking into account the special circumstances, to ensure that the resulting risks are reduced to a minimum, and

(c) the employees concerned are subject to appropriate health surveillance.

(4) Any exemption granted by the Authority under this Regulation shall be reviewed at least once every 4 years and shall be revoked, by a certificate in writing, at any time as soon as the justifying circumstances no longer obtain.

SCHEDULE

Regulation 5

HAND-ARM VIBRATION AND WHOLE-BODY VIBRATION

PART 1

HAND-ARM VIBRATION

1. Assessment of exposure

(a) The assessment of the level of exposure to hand-arm vibration is based on the calculation of the daily exposure value normalised to an eight-hour reference period $A(8)$, expressed as the square root of the sum of the squares (rms) (total value) of the frequency-weighted acceleration values, determined on orthogonal axes a_{hwx} , a_{hwy} , a_{hwz} as defined in Chapters 4 and 5 and Annex A to ISO (International Organization for Standardization) Standard 5349-1 (2001).

(b) The assessment of the level of exposure may be carried out on the basis of an estimate based on information provided by the manufactures concerning the level of emission from the work equipment used, and based on the observation of specific work practices or on measurement.

2. Measurement

When measurement is employed in accordance with Regulation 5(2)(c) -

(a) the methods used may include sampling, which must be representative of the personal exposure of an employee to the mechanical vibration in question; with the methods and apparatus used adapted to the particular characteristics of the mechanical vibration to be measured, to ambient factors and to the characteristics of the measuring apparatus, in accordance with ISO Standard 5349-2(2001), and

(b) in the case of devices which need to be held with both hands -

(i) measurement shall be made on each hand,

(ii) the exposure shall be determined by reference to the higher value of the two, and

(iii) information for the other hand shall also be given.

3. Interference

Regulation 5(3)(d) shall apply, in particular where the mechanical vibration interferes with the proper handling of controls or reading of indicators.

4. Indirect risks

Regulation 5(3)(d) shall apply, in particular when the mechanical vibration interferes with the stability of structures or the security of joints.

5. Individual protectors

Personal protective equipment against hand-arm vibration may contribute to the programme of measures referred to in Regulation 6(2).

PART 2

WHOLE-BODY VIBRATION

1. Assessment of exposure

The assessment of the level of exposure to mechanical vibration is based on the calculation of the daily exposure $A(8)$ expressed as equivalent continuous acceleration over an eight-hour period, calculated as the highest (rms) value, determined on three orthogonal axes ($1,4a_{wx}, 1,4a_{wy}, a_{wz}$ for a seated or standing employee), in accordance with Chapters 5, 6 and 7, Annex A and Annex B to ISO Standard 2631-1(1997).

The assessment of the level of exposure may be carried out on the basis of an estimate based on information provided by the manufacturers concerning the level of emission from the work equipment used, and based on observation of specific work practices or on measurement.

In the case of maritime shipping, only vibrations exceeding a frequency of 1 Hz need to be considered.

2. Measurement

When measurement is employed in accordance with Regulation 4(2)(c), the methods used may include sampling, which must be representative of the personal exposure of

an employee to the mechanical vibration in question. The methods and apparatus used must be adapted to the particular characteristics of the mechanical vibration to be measured, to ambient factors and to the characteristics of the measuring apparatus, in accordance with ISO Standard 2631-1(1997).

3. Interference

Regulation 5(3)(d) shall apply, in particular where the mechanical vibration interferes with the proper handling of controls or reading of indicators.

4. Indirect risks

Regulation 5(3)(d) shall apply, in particular when the mechanical vibration interferes with the stability of structures or the security of joints.

5. Extension of exposure

Regulation 5(3)(g) shall apply, in particular where, owing to the nature of the activity, an employee benefits from the use of rest facilities supervised by the employer; exposure to whole-body vibration in those facilities must be reduced to a level compatible with their purpose and conditions of use, except in cases of “force majeure”.

GIVEN under my hand,

13th July 2006

Tony Killeen

Minister of State at the

Department of Enterprise,

Trade and Employment.

EXPLANATORY MEMORANDUM

(This note is not part of the instrument and does not purport to be a legal interpretation.)

The purpose of these Regulations is to transpose Directive 2002/44/EC of the European Parliament and of the Council of 25 June 2002 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration), the sixteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC of 12 June 1989 (O.J. No. L 177, 6.7.2002, p. 13).

These Regulations prescribe the measures to be taken to protect employees from the risks arising from vibrations owing to their effects on safety and health, in particular muscular/bone structure, neurological and vascular disorders. These measures create a minimum basis of protection for all employees coming within the scope of the Safety, Health and Welfare at Work Act 2005.

The Regulations, inter alia -

- (i) set lower values for the daily action value or the daily exposure limit value for vibrations (Regulation 4),
- (ii) require that where employees are liable to be exposed to mechanical vibration, an employer shall make an assessment of the risks (Regulation 5),
- (iii) require an employer to provide employees exposed to risk from mechanical vibration, with suitable information, instruction and training (Regulation 7),
- (iv) provide for appropriate health surveillance to be made available to employees identified as requiring same by an occupational health care professional (Regulation 8),
- (v) provide for transitional periods in certain limited circumstances (Regulation 9),
- (vi) specify that in the case of sea and air transport provision is made for duly justified exemptions in some cases (Regulation 10), and
- (vii) empower the Health and Safety Authority to exempt any person or class of persons where the exposure of an employee to mechanical vibration is usually below the exposure action value, but may occasionally exceed the exposure limit value (Regulation 10).

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