L.N. 371 of 2005

OCCUPATIONAL HEALTH AND SAFETY AUTHORITY ACT (CAP. 424)

Work Place (Minimum Health and Safety Requirements for the Protection of Workers from Risks resulting from Exposure to Vibration) Regulations, 2005

IN exercise of the powers conferred by article 12 of the Occupational Health and Safety Authority Act, the Minister for Education, Youth and Employment, in consultation with the Occupational Health and Safety Authority, has made the following regulations:-

Title, scope and applicability.

1. (1) The title of these regulations is the Work Place (Minimum Health and Safety Requirements for the Protection of Workers from Risks resulting from Exposure to Vibration) Regulations, 2005.

(2) The scope of these regulations is to lay down minimum requirements for the protection of workers from risks to their health and safety arising or likely to arise from exposure to mechanical vibration. The requirements of these regulations shall apply to all those activities in which workers are, or are likely, to be exposed to risks from mechanical vibration during their work. These regulations shall implement Directive 2002/44/EC of the European Parliament and of the Council.

(3) These regulations shall apply fully to all workers without prejudice to more stringent or more specific provisions contained in any other law or regulation on the protection of workers from the risks related to exposure to vibration.

(4) These regulations shall be deemed to have come into force on the 6th July, 2005:

Provided that, with regard to work equipment which is given to the workers before the 6th July, 2007, and which does not permit the exposure limit values to be respected, taking into account the latest technical advances or the organisational measures taken, regulation 5 (3) shall come into force on the 6th July, 2010:

Provided further that with regard to equipment used in the agriculture sector, regulation 5 (3) shall come into force on the 6th July, 2014.

Interpretation.

2. In these regulations, unless the context otherwise requires:

Cap. 424.

the "Act" means the Occupational Health And Safety Authority Act;

the "Authority" means the Occupational Health and Safety Authority established by article 8 of the Act;

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

the "Minister" means the Minister responsible for occupational health and safety;

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

Exposure limit values and action values.

3. (1) The occupational exposure limit value and action limit value for hand-arm vibration shall be as follows:

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

(b) the daily exposure action value standardised to an eight-hour reference period shall be 2.5 m/s^2. Workers' exposure to hand-arm vibration shall be assessed or measured on the basis of the provisions of Point 1 of Part A of the Schedule.

(2) The exposure limit value and action limit value for whole-body vibration shall be as follows:

(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. Workers' exposure to whole-body vibration shall be assessed or measured on the basis of the provisions of Point 1 of Part B of the Schedule.

Determination and assessment of risks.

4. (1) The employer shall assess and, if necessary, measure the levels of mechanical vibrations to which workers are exposed.

Measurement shall be carried out in accordance with Point 2 of Part A or Point 2 of Part B of the Schedule to these regulations, as appropriate.

(2) The level of exposure to mechanical vibration may be assessed by means of observation of specific working practices and reference to relevant information on the probable magnitude of the vibration corresponding to the equipment or the types of equipment used in the particular conditions of use, including such information provided by the manufacturer of the equipment. That operation shall be distinguished from measurement, which requires the use of specific apparatus and appropriate methodology.

(3) The assessment and measurement referred to in sub-regulation (1) shall be planned and carried out by competent persons at suitable intervals. The results obtained from the assessment or measurement of the level of exposure to mechanical vibration shall be preserved in a suitable form so as to permit consultation at a later stage.

(4) The employer shall give particular attention, when carrying out the risk assessment, to the following:

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

(b) the exposure limit values and the exposure action values laid down in regulation 3 of these regulations;

(c) any effects concerning the health and safety of workers at particularly sensitive risk;

(d) any indirect effects on worker health and safety resulting from interactions between mechanical vibration and the workplace or other work equipment;

(e) information provided by the manufacturers of work equipment in accordance with the relevant Community Directives in force;

(f) the existence of replacement equipment designed to reduce the levels of 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 or high temperatures;

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

(5) The employer shall be in possession of an assessment of the risk in accordance with regulation 10 of L.N. 36 of 2003, 'General Provisions for Health & Safety at Work Place, Regulations 2003', and shall identify those measures which must be taken in accordance with regulations 5 and 6 of these regulations. The risk assessment shall be recorded on a suitable medium, and it may include a justification by the employer that the nature and extent of the risks related to mechanical vibration make a further detailed risk assessment unnecessary. The risk assessment shall be kept up-to-date on a regular basis, particularly if there have been significant changes which could render it out-of-date, or when the results of health surveillance show it to be necessary.

Reduction of risks resulting from exposure to vibration.

5. (1) Every employer shall take measures to eliminate at their source or minimize the risks arising from exposure to mechanical vibration, taking account of technical progress and of the availability of measures to control the risk at source.

(2) On the basis of the risk assessment referred to in regulation 4, once the exposure action values laid down in regulation 3(1)(b) and (2)(b) are exceeded, the employer shall establish and implement a programme of technical or organisational measures intended to reduce to a minimum exposure to mechanical vibration and the attendant risks, taking into account in particular:

(a) otherworking methods that require less exposure to mechanical vibration;

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

(c) the provision of auxiliary equipment that 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 workplace and workplace systems;

(e) the design and layout of workplaces and work stations;

(f) adequate information, training and instruction of workers to use work equipment correctly and safely in order to reduce their exposure to mechanical vibration to a minimum;

(g) limitation of the duration and intensity of the exposure;

(h) appropriate work schedules with adequate rest periods;

(i) the provision of clothing to protect exposed workers from cold and damp.

(3) In any event, workers shall not be exposed above the exposure limit value. If, despite the measures taken by the employer to comply with these regulations, the exposure limit value is exceeded, the employer shall take immediate action to reduce exposure below the exposure limit value. The employer shall identify the reasons why the exposure limit value has been exceeded, and shall amend the protection and prevention measures accordingly in order to prevent it being exceeded again. The employer shall adapt the measures referred to in this regulation to the requirements of workers at particular risk.

Information and training for workers.

6. (1) The employer shall ensure that workers who are exposed to the risks from mechanical vibration at work or their representatives for safety and health at work, receive information and training relating to the outcome of the risk assessment provided for in regulation 4(1) of these regulations, concerning in particular:

(a) the measures taken to implement these regulations in order to eliminate or reduce to a minimum the risks from mechanical vibration;

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

(c) the results of the assessment and measurement of the mechanical vibration carried out in accordance with regulation 4 of these regulations and the potential harm arising from the work equipment in use;

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

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

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

Consultation and participation of workers.

7. Consultation and participation of workers or their representatives on the matters covered by these regulations and the schedule hereto, including the assessment and measurement of vibration experienced at work, shall take place in accordance with the General Provisions for Health and Safety at Work places Regulations, 2003.

Health surveillance.

8. (1) (a) Without prejudice to each worker's right, if the worker so wishes, to receive health surveillance at regular intervals, an employer shall make arrangements for carrying out appropriate health surveillance of workers for whom the results of the assessment referred to in regulation 4 of these regulations reveal a risk to health, and such health records shall be made available to the Authority.

(b) Health surveillance, the results of which are taken into account in the application of preventive measures at a specific workplace, shall be intended to prevent and diagnose rapidly any disorder linked with exposure to mechanical vibration. Such surveillance shall be appropriate where:

(i) the exposure of workers to vibration is such that a link can be established between that exposure and an identifiable illness or harmful effects on health,

(ii) it is probable that the illness or the effects occur in a worker's particular working conditions, and

(iii) there exist medical examinations for the detection of the illness or the harmful effects on health.

(c) In any event, workers exposed to mechanical vibration in excess of the values stated in regulations 3(1)(b) and 3(2)(b) shall be entitled to appropriate health surveillance.

(2) An employer shall ensure that for each worker who undergoes health surveillance in accordance with regulation 8 (1), individual health records are made and kept up-to-date.

(3) (a) Health records shall contain a summary of the results of the health surveillance carried out, and shall be kept in a suitable form so as to permit any consultation in a confidential manner at a later date.

(b) Copies of the appropriate records shall be supplied to the Authority on request;

the individual worker shall, at his request, have access to the health records relating to him personally.

(4) Where, as a result of health surveillance, a worker is found to have an identifiable disease or adverse health effect which is considered by a doctor or other competent person to be the result of exposure to mechanical vibration at work:

(a) theworker shall be informed by the doctor or other suitably competent person of the result which relates to him personally, and shall, in particular, receive information and advice regarding any health surveillance which he should undergo following the end of exposure;

(b) the employer shall be informed of any significant findings from the health surveillance, taking into account any medical confidentiality;

(c) the employer shall:

(i) review the risk assessment carried out pursuant to regulation 4,

(ii) review the measures provided for to eliminate or reduce risks pursuant to regulation 5,

(iii) take into account the advice of the competent person or the Authority in implementing any measures required to eliminate or reduce risk in accordance with regulation 5, including the possibility of assigning the worker to alternative work where there is no risk of further exposure, and

(iv) arrange continued health surveillance and provide for a review of the health status of any other worker who has been similarly exposed. In such cases, the doctor or competent person or the Authority may propose that exposed persons undergo an adequate medical examination.

Exemptions.

9. (1) In compliance with the general principles of health and safety protection for workers, in the case of sea and air transport, the Minister responsible for the safety of the crew on board vessels, may by order in writing grant exemptions from regulation 5(3) in duly justified circumstances with respect to whole-body vibration where, for technical reasons or the specific characteristics of workplaces, it is

not possible to comply with the exposure limit value despite the technical or organisation measures taken.

(2) In a case where the exposure of a worker to mechanical vibration is usually below the exposure action values given in regulation 3(1)(b) and 3(2)(b) but varies markedly from time to time and may occasionally exceed the exposure limit value, the Minister may by order in writing grant exemptions from regulation 5(3). However, the exposure value averaged over forty hours must be less than the exposure limit value and there must be evidence to show that the risks from the pattern of exposure as it is occurring are lower than those from exposure at the exposure limit value.

(3) The exemptions referred to in regulation 9(1) and 9(2), shall be subject to conditions, which in view of individual circumstances, ensure that the risks resulting from such exemptions are reduced to a minimum and the exemptions shall be reviewed periodically and be revoked as soon as is reasonably practicable.

Onus of proof.

10. In any proceedings for an offence under these regulations consisting of failure to comply with a duty or requirement to do something, or to do something so far as is reasonably practicable, it shall be for the accused to prove (as the case may be) that it was not practicable or not reasonably practicable to do more than was in fact done to satisfy the duty or requirement, or there was no better practicable means than was in fact used to satisfy the duty or requirement.

Offences.

11. Any person who knowingly or recklessly interferes with the process of providing a safe and healthy place of work shall be guilty of an offence.

SCHEDULE

Regulations 3 and 4

Part A. HAND-ARM VIBRATION

1. Assessment of exposure

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 the orthogonal axes a_{hwx}, a_{hwy}, a_{hwz} as defined in Chapters 4 and 5 and Annex A to ISO standard 5349-1(2001).

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 the observation of specific work practices or on measurement.

2. Measurement

When measurement is employed in accordance with regulation 4(1):

(a) the methods used may include sampling, which must be representative of the personal exposure of a worker 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 5349-2(2001);

(b) in the case of devices which need to be held with both hands, measurements must be made on each hand. The exposure is determined by reference to the higher value of the two; information for the other hand shall also be given.

3. Interference

Regulation 4(4)(d) will apply, in particular where the mechanical vibration interferes with the proper handling of controls or reading of indicators.

4. Indirect risks

Regulation 4(4)(d) will 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 5(2).

Part B. WHOLE-BODY VIBRATION

1. Assessment of exposure

The assessment of the level of exposure to vibration is based on the calculation of daily exposure A(8) expressed as equivalent continuous acceleration over an eight-hour period, calculated as the highest (rms) value, or the highest vibration dose value (VDV) of the frequency-weighted accelerations, determined on three orthogonal axes ($1.4a_{wx}$, $1.4a_{wy}$,a_{wz} for a seated or standing worker) 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.

2. Measurement

When measurement is employed in accordance with regulation 4(1), the methods used may include sampling, which must be representative of the personal exposure of a worker to the mechanical vibration in question. The methods 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.

3. Interference

Regulation 4(4)(d) will apply, in particular where the mechanical vibration interferes with the proper handling of controls or reading of indicators.

4. Indirect risks

Regulation 4(4)(d) will apply, in particular when the mechanical vibration interferes with the stability of structures or the security of joints.

5. Extension of exposure

Regulation 4(4)(g) will apply, in particular where, owing to the nature of the activity, a worker 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*.