



STATUTORY INSTRUMENTS.

**S.I. No. 36 of 2016**

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SAFETY, HEALTH AND WELFARE AT WORK (GENERAL  
APPLICATION) (AMENDMENT) REGULATIONS 2016

## SAFETY, HEALTH AND WELFARE AT WORK (GENERAL APPLICATION) (AMENDMENT) REGULATIONS 2016

I, GERALD NASH, Minister of State at the Department of Jobs, Enterprise and Innovation, 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) (as adapted by the Enterprise, Trade and Innovation (Alteration of Name of Department and Title of Minister) Order 2011 (S.I. No. 245 of 2011)) and the Jobs, Enterprise and Innovation (Delegation of Ministerial Functions) Order 2014 (S.I. No. 545 of 2014), and after consultation with the Health and Safety Authority, hereby make the following regulations:

1. These Regulations may be cited as the Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2016.

2. In these Regulations, “Principal Regulations” means the Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007), amended by the Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2007 (S.I. No. 732 of 2007), the Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2010 (S.I. No. 176 of 2010) and the Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2012 (S.I. No. 445 of 2012).

3. The Principal Regulations and these Regulations may be cited together as the Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2016.

4. These Regulations come into operation on 1 day of July 2016.

5. The following are revoked:

(a) the Factories (Woodworking Machinery) Regulations, 1972 (S.I. No. 203 of 1972);

(b) the Factories (Abrasive Blasting Of Surfaces) Regulations, 1974 (S.I. No. 357 of 1974);

(c) the Safety in Industry (Abrasive Wheels) Regulations 1982 (S.I. No. 30 of 1982).

6. Notwithstanding the revocation of the Factories (Woodworking Machinery) Regulations 1972 (S.I. No. 203 of 1972), where a certificate has been granted under Regulation 4(1) of those Regulations and the certificate has not been revoked prior to the coming into operation of Regulation 9(c), then on that coming into operation that certificate shall continue to apply in respect of

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any requirement under Part 11 (inserted by Regulation 9(c)) of the Principal Regulations which is equivalent to a requirement in respect of which the certificate applies until the earlier of the following occurs—

- (a) that certificate is revoked, or
- (b) the expiration of 6 months from the coming into operation of Regulation 9(c).

7. Notwithstanding the revocation of the Factories (Abrasive Blasting Of Surfaces) Regulations 1974 (S.I. No. 357 of 1974), where a certificate has been granted under Regulation 4 of those Regulations and the certificate has not been revoked prior to the coming into operation of Regulation 9(c), then on that coming into operation that certificate shall continue to apply in respect of any requirement under Part 13 (inserted by Regulation 9(c)) of the Principal Regulations which is equivalent to a requirement in respect of which the certificate applied until the earlier of the following occurs—

- (a) that certificate is revoked, or
- (b) the expiration of 6 months from the coming into operation of Regulation 9(c).

8. Notwithstanding the revocation of the Safety in Industry (Abrasive Wheels) Regulations 1982 (S.I. No. 30 of 1982), where a certificate has been issued under Regulation 5(1) of those Regulations and the certificate has not been revoked prior to the coming into operation of Regulation 9(c), then on that coming into operation that certificate shall continue to apply in respect of any requirement under Part 12 (inserted by Regulation 9(c)) of the Principal Regulations which is equivalent to a requirement in respect of which the certificate applied until the earlier of the following occurs—

- (a) that certificate is revoked, or
- (b) the expiration of 6 months from the coming into operation of Regulation 9(c).

9. The Principal Regulations are amended as follows:

- (a) by inserting in the “Arrangement of Regulations”, after “PART 10 PRESSURE SYSTEMS”, the following:

“PART 11

WOODWORKING MACHINES

- 195. Interpretation for Part 11.
- 196. Application of Part 11.
- 197. Space around woodworking machines.

198. Training, instruction and information.
199. Guarding and other protection measures for woodworking machines.
200. Maintenance of woodworking machines.
201. Precautions to reduce risk of contact during rundown of wood-working machines.
202. Discharge of dust emitted by woodworking machines.
203. Circular sawing machines.
204. Multiple rip sawing machines and straight line edging machines.
205. Band sawing machines.
206. Planing machines.
207. Vertical spindle moulding machines.

#### PART 12

##### ABRASIVE WHEELS

208. Interpretation for Part 12.
209. Application of Part 12.
210. Use of abrasive wheels.
211. Speed of revolution.
212. Mounting of abrasive wheels.
213. Authorisation and training.
214. Guarding and rests for workpieces and flanges.

#### PART 13

##### ABRASIVE BLASTING OF SURFACES.

215. Interpretation for Part 13.
216. Application of Part 13.
217. Provision of blasting apparatus, enclosures and ventilating plant.
218. Prohibition on silica.

- 219. Protection of employees and other persons.
- 220. Persons under 18 years of age.
- 221. Personal protective equipment.
- 222. Blasting enclosures for cleaning of castings.
- 223. Cleaning blasting enclosures, blasting apparatus and ventilating plant.”,

(b) by the insertion in the “Arrangement of Regulations”, after “Schedule 12, PRESSURE SYSTEMS”, the following:

“SCHEDULE 13

WOODWORKING MACHINES

SCHEDULE 14

TRAINING AND INSTRUCTION”,

(c) by the insertion of the following Parts after Regulation 194:

“PART 11

WOODWORKING MACHINES

*Interpretation for Part 11.*

195. In this Part—

“band sawing machine” means a sawing machine designed to be fitted with a blade in the form of a continuous band or strip the cutting portion of which runs in a vertical direction, but does not include a log band sawing machine or a band re-sawing machine;

“circular sawing machine” means a sawing machine comprising a saw bench (including a rack bench) with a spindle situated below the machine table to which a circular saw blade can be fitted, for the purpose of dividing material into separate parts, but does not include a multiple rip sawing machine, a straight line edging machine or any sawing machine in the operation of which the blade is moved towards the material which is being cut;

“CNC machine” means a machine where automatic control of the machine’s operational process is performed by an electronic computing device as that machine completes its operational function;

“combined machine” means a machine for surfacing and thicknessing;

“cutters” means cutters forming part of a woodworking machine and includes saw blades, chain cutters, knives, boring tools, detachable cutters and solid cutters;

“high-risk woodworking machine” includes any hand-fed woodworking machine, any sawing machine fitted with a circular blade or saw band and any planing machine when used for surfacing;

“machine table” includes, in relation to a circular sawing machine, any frame which supports the material being cut;

“planing machine” means a machine for surfacing or for thickening or a combined machine but does not include a multi-cutter moulding machine having two or more cutter spindles;

“squared stock” means material having a rectangular (including square) cross section the dimensions of which remain substantially constant throughout the length of the material;

“surfacing” means planing or smoothing the surface of material by passing it over cutters and includes chamfering and bevelling but does not include moulding, tenoning, rebating or recessing;

“vertical spindle moulding machine” includes a high-speed routing machine;

“woodworking machine” means any machine (including a portable machine) of a kind specified in Schedule 13 which is designed or intended for use on all or any one or more of the following, namely, wood, cork or fibre board and material composed partly of any of those materials.

*Application of Part 11.*

196. (1) Subject to paragraph (2), this Part applies to an employer in respect of the use of any woodworking machine at a place of work for which that employer has responsibility under the Act or these Regulations.

(2) This Part, in so far as it relates to the design of a woodworking machine used at a place of work, does not apply to a woodworking machine where the design of that machine meets the requirements of the European Communities (Machinery) Regulations 2008 (S.I. No. 407 of 2008).

*Space around woodworking machines.*

197. (1) An employer shall ensure that sufficient clear and unobstructed space, free of trip hazards, is provided around each woodworking machine while the machine is in use to enable, so far as is practicable, the work being done at the machine to be done without risk of injury to any person.

(2) Without prejudice to the generality of paragraph (1), an employer shall ensure that effective measures are taken to ensure that materials or articles around a woodworking machine are not placed, stacked, or stored in a manner likely to cause harm.

*Training, instruction and information.*

198. (1) Subject to paragraph (3), an employer shall ensure that an employee who operates a woodworking machine—

- (a) has been trained in operating the machine,
- (b) has received instruction in accordance with paragraph (2)(a), and
- (c) has been provided with the information specified in paragraph (2)(b).

(2) An employer shall ensure that in advance of operating a wood-working machine an employee shall—

- (a) receive instruction on—
  - (i) the dangers arising in connection with the machine, the precautions to be observed and the requirements of the Regulations in this Part which apply to the machine,
  - (ii) how to use the guards and any other protection measures required to be provided by Regulation 199 and Regulations 201 to 207 which relate to the machine, and
  - (iii) procedures for setting up, adjusting, using and cleaning the machine,

and
- (b) be provided with information on the use of the machine, including where relevant—
  - (i) the speed, range, type and dimensions of tools suitable for the machine,
  - (ii) any limitation on the cutting speeds of the machine, particular operations or size and material of any workpiece,
  - (iii) procedures relating to the repair or replacement of any guard or protection device,
  - (iv) the availability, suitability and use of any additional protection device,
  - (v) safe methods of handling tools,

- (vi) correct procedures for start-up, shutdown and isolation of the machine, taking into account the time required for all parts of the machine to come to a halt,
- (vii) procedures for cleaning the machine,
- (viii) procedures for setting or adjusting any guard, tool, clamp or other part of a machine, and
- (ix) in the case of CNC machines, programming.

(3) An employer shall only allow a person who has reached 16 years of age but is less than 18 years of age operate a high-risk wood-working machine—

- (a) for the purposes of training, and
- (b) when the person is under the direct supervision of another person who has knowledge of, and experience of working on, the machine.

*Guarding and other protection measures for woodworking machines.*

199. (1) An employer shall, in relation to each woodworking machine in operation provide such guarding and other protection devices including spikes, push-sticks, push-blocks, jigs, holders and back stops, gripping devices and powered feed devices as are necessary to ensure that the machine in question is safe to operate.

(2) An employer shall not require an employee to use a wood-working machine unless guarding and any other protection device referred to in paragraph (1), necessary to ensure the machine is safe to operate, are in place.

(3) An employer shall ensure the proper maintenance of—

- (a) all woodworking machines in operation in that employers workplace, and
- (b) all guards and other protection devices used with the machines.

(4) Subject to paragraph (5), an employer shall ensure that any employee operating a woodworking machine shall use, and keep properly adjusted the guards, devices or other safeguards provided for use with the machine in accordance with paragraph (1).

(5) Paragraph (4) shall not apply whenever, because of the nature of the work being done, to use the guards, devices or other safeguards referred to in that paragraph would be impracticable.



(6) Subject to paragraph (8) and paragraphs (2) and (3) of Regulation 207, and without prejudice to Regulation 33, an employer shall ensure that—

- (a) every guard and other protection device provided for a woodworking machine shall be of suitable design, good construction, sound material and adequate strength for the purpose for which it is intended,
- (b) subject to paragraph (7), the cutters on every woodworking machine are enclosed by a guard or guards to the greatest extent practicable, having regard to the work being done,
- (c) at all times while cutters are in motion the guarding required by this Regulation is kept in position, properly secured and adjusted except when, and only to the extent to which, because of the nature of the work being done, the use of any such guarding is rendered impracticable,
- (d) the guard at a machine provides a sufficient degree of protection in the event of the cutter disintegrating or the cutter being ejected, and
- (e) where a guard comprises an outer fence of the perimeter type, any hinged, sliding or moveable guards forming a part of that fence or enclosure should be interlocked so that the machine will not run unless each of them are effectively closed.

(7) Subparagraph (b) of paragraph 6 shall not apply in respect of a woodworking machine—

- (a) if the cutters are positioned so as to be as safe as the cutters would be if they were enclosed by the guard or guards referred to in that subparagraph, or
- (b) where a safeguard is provided which renders the machine as safe as it would be if the guard or guards referred to in that subparagraph were provided.

(8) The exception referred to in paragraph (6)(c) shall not apply to the use of any guard required by Regulation 203(7)(b) or by paragraphs (1) or (7) of Regulation 206.

*Maintenance of woodworking machines.*

200. (1) An employer shall ensure that an employee does not examine, repair, clean, oil or grease any woodworking machine while it is in motion if the examination, repairing, cleaning, oiling or greasing would expose that employee or any other person to risk of injury from any moving part either of the woodworking machine or other adjacent machinery.

(2) An employer shall ensure that an employee does not make any adjustment to any part of a woodworking machine or to any guard on the machine while the cutters are in motion, unless the adjustment can be made without risk of injury to any person.

(3) An employer shall ensure that the blade of—

- (a) a circular sawing machine,
- (b) a band re-sawing machine, or
- (c) a band mill,

is not cleaned by hand scraping while the blade is in motion.

*Precautions to reduce risk of contact during rundown of woodworking machines*

201. An employer shall ensure that the necessary technical measures are taken to control any risk of contact by a person with any parts of a woodworking machine which are still in motion after the machine has been switched off.

*Discharge of dust emitted by woodworking machines.*

202. An employer shall take such measures as are reasonably practicable to protect persons from inhaling wood dust emitted from woodworking machines and where reasonably practicable, provide and maintain exhaust appliances as near as possible to the origin of the dust.

*Circular sawing machines.*

203. (1) Subject to paragraph (12), an employer shall ensure that—

- (a) the part of the saw blade of a circular sawing machine which is below the machine table is securely fenced,
- (b) every circular sawing machine is provided with a riving knife which—
  - (i) is securely fixed by means of a suitable device situated below the machine table,
  - (ii) is behind and in a direct line with, the saw blade, and
  - (iii) fulfils the conditions set out in subparagraph (c),
- (c) in relation to the riving knife referred to in subparagraph (b)—
  - (i) it has a smooth surface, is strong, rigid and easily adjustable,

- (ii) the edge of the knife nearer the saw blade forms an arc of a circle having a radius not exceeding the radius of the largest saw blade with which the saw bench is designed to be used,
- (iii) it is capable of being adjusted, and is kept adjusted, so that-
  - (I) it is as close as practicable to the saw blade, having regard to the nature of the work being done, and
  - (II) at the level of the machine table the distance between the edge of the knife nearer to the saw blade and the teeth of the saw blade does not exceed 12 millimetres,
- (iv) with a saw blade with a diameter of—
  - (I) less than 600 millimetres, the knife extends upwards from the machine table to a height above the surface of the machine table which is not more than 25 millimetres below the highest point of the saw blade, and
  - (II) 600 millimetres or more, the knife extends upwards from the machine table to a height of at least 225 millimetres above the machine table,

and
- (v) with a parallel plate saw blade, it is thicker than the plate of the saw blade.

(2) Subject to paragraph (12), and without prejudice to the requirements of paragraph (7)(b), an employer shall ensure that the part of the saw blade of every circular sawing machine which is above the machine table is guarded by a suitable and easily adjustable guard—

- (a) capable of being moved horizontally and vertically and parallel to the saw blade,
- (b) having along the whole of its length a flange of adequate depth on the side of the saw blade furthest from the fence,
- (c) kept adjusted so that the flange referred to in subparagraph (b) extends beyond the roots of the teeth of the saw, and
- (d) extending from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.

(3) Where a guard is provided in accordance with paragraph (2), an employer shall ensure the guard is fitted with an adjustable front extension piece which shall have along the whole of its length a flange of adequate depth on the side further from the fence and the extension piece shall be kept adjusted so that the flange referred to extends beyond the roots of the teeth of the saw blade.

(4) An employer shall ensure that where the spindle of a circular sawing machine is not capable of operating at more than one working speed, no saw blade is used with the machine for dividing material into separate parts which has a diameter of less than six-tenths of the diameter of the largest saw blade with which the saw bench is designed to be used.

(5) An employer shall ensure that where the spindle of a circular sawing machine is capable of operating at more than one working speed, no saw blade is used with the machine for dividing material into separate parts which has a diameter of less than six-tenths of the diameter of the largest saw blade which can properly be used at the fastest speed of the spindle at that saw bench.

(6) An employer shall ensure that a notice is securely fixed to every circular sawing machine specifying the diameter of the smallest saw blade which may be used with the machine in accordance with paragraph (4) or (5), as may be appropriate.

(7) An employer shall ensure that a circular sawing machine is not used—

- (a) for work which involves feeding a workpiece to the saw blade by hand and starting a cut otherwise than at the end or outer edge of a surface of the workpiece,
- (b) for cutting any rebate, tenon, mould or groove, unless that part of the saw blade or other cutter which is above the machine table is effectively guarded, or
- (c) for cross-cutting logs, branches or any material intended for firewood unless the material being cut is firmly held by a gripping device securely fixed to a travelling table.

(8) An employer shall ensure that a suitable push-stick is provided and kept available for use at every circular sawing machine when fed by hand.

(9) Subject to paragraph (10), push-sticks shall be used—

- (a) to exert feeding pressure on the material between the saw blade and the fence throughout any cut of 300 millimetres or less in length,

- (b) to exert feeding pressure on the material between the saw blade and the fence during the last 300 millimetres of any cut of more than 300 millimetres in length, and
- (c) to remove from between the saw blade and the fence, pieces of material which have been cut.

(10) It shall not be necessary to use a push-stick where the distance between a circular saw blade and its fence is so great, or the method of feeding material to the saw blade is such, that the use of a push-stick can safely be dispensed with.

(11) An employer shall ensure that where any employee (other than the operator) is removing material which has been cut at a circular sawing machine—

- (a) that employee stands at the delivery end of the machine for that purpose, and
- (b) the machine table is constructed, or other arrangements are made by suitably extending the table, to ensure that the distance between the delivery end of the table, over the whole of its width together with any extension, and the up-running part of the saw blade, is not less than 1,200 millimetres.

(12) Paragraphs (1), (2) and (3) shall not apply to any circular sawing machine in respect of which safeguards are provided which render the machine as safe as it would be if the requirements set out in those paragraphs were complied with.

*Multiple rip sawing machines and straight line edging machines.*

204. (1) Subject to paragraph (2), an employer shall ensure that every multiple rip sawing machine and straight line edging machine—

- (a) has provided on the operator's side of the in-feed pressure rollers, an effective device which is designed and constructed to contain, as far as practicable, any material accidentally ejected by the machine, and every such device extends to not less than the full width of the said pressure rollers, and
- (b) on which the saw spindle is mounted above the machine table, is fitted on the side remote from the fence with a suitable guard, which extends from the edge of the device referred to in paragraph (a) along a line parallel to the blade of the saw at least 300 millimetres towards the axis of the saw and is of such a design, and so constructed, as to contain, as far as practicable, any material accidentally ejected from the machine.

(2) Paragraph (1) shall not apply to any woodworking machine in respect of which safeguards are provided which render the machine as

safe as it would be if the requirements set out in that paragraph were complied with.

*Band sawing machines.*

205. (1) Subject to paragraph (2), an employer shall ensure that, in relation to a band sawing machine—

- (a) the saw wheels of the machine and the whole of the blade of that machine, other than that part of the blade which runs downwards between the top wheel and the machine table, is enclosed by a guard or guards of substantial construction, and
- (b) that part of the blade of the machine which is above the friction disc or rollers and below the top wheel is guarded by a frontal plate which is as close as is practicable to the saw blade and has at least one flange at right angles to the plate and extending behind the saw blade.

(2) Paragraph (1) shall not apply to any band sawing machine in respect of which safeguards are provided which render the machine as safe as it would be if the requirements set out in that paragraph were complied with.

*Planing machines.*

206. (1) An employer shall ensure that a planing machine is not used for cutting any rebate, recess, tenon or mould unless the cutter is effectively guarded.

(2) An employer shall ensure that every planing machine for surfacing is—

- (a) fitted with a cylindrical cutter block,
- (b) designed and constructed so as to be capable of adjustment so that the clearances between the cutters and the front edge of the delivery table, and the gap between the feed table and the delivery table, are as small as practicable having regard to the operation being performed and a machine which is not so adjusted is not used for surfacing,
- (c) subject to paragraph (11), provided with a bridge guard which—
  - (i) is strong and rigid,
  - (ii) has a length not less than the full length of the cutter block,
  - (iii) has a width not less than the diameter of the cutter block,

- (iv) is constructed so as to be capable of easy adjustment in both a vertical and horizontal direction,
- (v) is mounted on the machine in a position which is approximately central over the axis of the cutter block,
- (vi) is constructed so as to prevent the guard being accidentally displaced from that position, and
- (vii) is properly adjusted so as to avoid the risk of injury to any person.

(3) Subject to paragraph (5), an employer shall ensure that where a planing machine for surfacing is being used to machine a face surface of squared stock, the bridge guard is kept adjusted so that—

- (a) the distance between the end of the guard and the fence does not exceed 10 millimetres, and
- (b) the underside of the guard is not more than 10 millimetres above the upper surface of the material.

(4) Subject to paragraph (5), an employer shall ensure where a planing machine for surfacing is being used to machine an edge surface of squared stock the bridge guard is kept adjusted so that—

- (a) the end of the guard is at a point not more than 10 millimetres from the surface of the squared stock which is further from the fence, and
- (b) the underside of the guard is not more than 10 millimetres above the surface of the feed table.

(5) An employer shall ensure where a planing machine for surfacing is being used to machine both a face surface of squared stock and an edge surface of squared stock, one operation immediately following the other, the bridge guard is kept so that—

- (a) when a face surface is being machined the underside of the guard is not more than 10 millimetres above the upper surface of the squared stock, and
- (b) when an edge surface is being machined, the end of the guard is at a point not more than 10 millimetres from the surface of the squared stock which is further from the fence.

(6) An employer shall ensure that where a planing machine for surfacing is being used for the machining of one or more adjoining surfaces of squared stock of square cross section, the operator of the machine keeps the bridge guard adjusted in accordance with the requirements of paragraph (4) or paragraph (5).

(7) Subject to paragraph (11), an employer shall ensure that every planing machine for surfacing is provided with a strong, effective and easily adjustable guard for that part of the cutter block which is on the non working side of the fence.

(8) An employer shall ensure that where a face surface is being planed or smoothed on a planing machine and, by reason of the shortness of the material, work cannot be done with the bridge guard adjusted in accordance with the requirements of paragraphs 2(c), (3), (4), (5), and (6), a suitable push-block having suitable hand-holds which afford the operator of the machine a firm grip of the push-block is provided and used.

(9) Subject to paragraph (11), an employer shall ensure that the part of the cutter block of a combined machine which is exposed in the table gap is effectively guarded whenever the machine is used for thickening.

(10) Subject to paragraph (11), an employer shall ensure that every planing machine used for thickening is provided on the operator's side of the feed roller with a device to restrain, so far as practicable, any workpiece accidentally ejected by the machine.

(11) Paragraphs (2)(c), (7), (9) and (10) shall not apply to any planing machine in respect of which safeguards are provided which render the machine as safe as it would be if the requirements set out in those paragraphs were complied with.

(12) In this Regulation, in relation to squared stock—

“edge” means either of the surfaces which are the narrower surfaces;

“face” means either of the surfaces which are the wider surfaces;

“surfaces” do not include cross-sections.

*Vertical spindle moulding machines.*

207. (1) An employer shall ensure, in relation to each vertical spindle moulding machine, that—

- (a) every cutter and cutter block is of good construction, sound material and properly maintained,
- (b) every detachable cutter is mounted in or on the cutter block or spindle so as to prevent the cutter, in so far as is practicable, from becoming accidentally detached from the machine, and
- (c) where straight fences are being used for the purposes of any work being done at the machine, the gap between the fences



is reduced as far as practicable either by the use of a false fence or otherwise.

(2) An employer shall ensure that where, by reason of the nature of the work being done at a vertical spindle moulding machine, it is impracticable to provide a guard enclosing the cutters of the machine so that the cutters are effectively guarded in accordance with Regulation 199(6)(a) and (b), but it is practicable to provide a jig or holder of such design and construction that any material being machined is held firmly, and having suitable handholds which will afford the operator a firm grip, the machine shall not be used unless such a jig or holder is provided.

(3) Subject to paragraph (4), an employer shall ensure that every guard provided in accordance with paragraphs (a) and (b) of Regulation 199(6) for the cutters of any vertical spindle moulding machine is of such design and construction so as to contain, in so far as is reasonably practicable, any ejected part of the cutters or their fixing appliances.

(4) Paragraph (3) shall not apply to any vertical spindle moulding machine in respect of which safeguards are provided which render the machine as safe as it would be if the requirements set out in that paragraph were complied with.

(5) Where—

- (a) the vertical spindle moulding machine is cutting material,
- (b) the cutting commences otherwise than at the end of a surface of the material, and
- (c) it is impracticable to provide a jig or holder in accordance with paragraph (2),

an employer shall ensure the trailing end of the material is, if practicable, supported by a suitable backstop to prevent the material being thrown back when the cutters first make contact with the material.

(6) An employer shall ensure that no work is done on a vertical spindle moulding machine where—

- (a) the cutting of the material by the machine commences otherwise than at the end of a surface of the material, and
- (b) during the progress of the cutting the material is being moved in the same direction as the movement of the cutters,

unless a jig or holder provided in accordance with paragraph (2) is being used.

(7) An employer shall ensure that where the nature of the work being done on a vertical spindle moulding machine is such that the use of a suitable spike or push-stick would enable the work to be carried out without unnecessary risk of harm to the machine operator, such a spike or push-stick is provided and used.

(8) An employer shall ensure that where the motor driving a vertical spindle moulding machine (other than a high-speed routing machine) is designed to operate at two working speeds, the device controlling the speed of the motor is arranged so that the motor cannot run at the higher speed without first running at the lower speed.

## PART 12

### ABRASIVE WHEELS

#### *Interpretation for Part 12.*

208. In this Part—

“abrasive wheel” means—

- (a) a wheel, cylinder, disc or cone which, whether or not any other material is comprised in it, consists of abrasive particles held together by bonds,
- (b) a mounted wheel or point and a wheel or disc having (in either case) separate segments of abrasive material,
- (c) a wheel or disc made (in either case) of metal, wood, cloth, felt, rubber or paper and having any surface consisting wholly or partly of abrasive material, or
- (d) a wheel, disc or saw to which a rim or segments consisting of diamond abrasive particles are attached,

which is, or is intended to be, power-driven and is for use in any grinding or cutting operation;

“mounted wheel or point” means a wheel or point consisting (in either case) of abrasive particles held together by mineral, metallic or organic bonds, whether natural or artificial, and securely and permanently mounted on the end of a mandrel or quill.

#### *Application of Part 12.*

209. This Part applies to an employer in respect of the use of any abrasive wheel for any grinding or cutting operation at a place of work for which the employer has responsibility under the Act or these Regulations.

*Use of abrasive wheels.*

210. An employer shall ensure that an abrasive wheel is suitable for the work for which it is used, having regard to the risk of personal injury to any person.

*Speed of revolution.*

211. (1) An employer shall ensure that an abrasive wheel having a diameter of more than 80 millimetres is not used unless the abrasive wheel, its blotter or label is clearly marked with—

- (a) the maximum permissible speed specified by the manufacturer for that abrasive wheel,
- (b) any other information necessary for its safe use including expiry dates and restrictions of use.

(2) An employer shall ensure that an abrasive wheel having a diameter of 80 millimetres or less is not used unless it is clearly marked in accordance with subparagraphs (a) and (b) of paragraph (1) or information in writing has been given to a user of the wheel stating—

- (a) the maximum permissible speed specified by the manufacturer for that abrasive wheel, or for the class of abrasive wheels to which that abrasive wheel belongs,
- (b) in the case of a mounted wheel or point, the overhang permissible at that speed, and
- (c) any other information necessary for its safe use including expiry dates and restrictions of use.

(3) Subject to paragraph (4), an employer shall ensure that an abrasive wheel is not operated at a speed in excess of the appropriate maximum permissible speed specified by the manufacturer for that wheel.

(4) Where the diameter of an abrasive wheel has been reduced, its spindle speed may be increased as long as the maximum peripheral surface speed specified for the wheel is not exceeded.

(5) An employer shall ensure that every machine is marked with the maximum speed or speed range of the spindle on which an abrasive wheel is, or is intended to be, mounted.

(6) An employer shall ensure that a spindle on a machine having a mounted abrasive wheel is not operated at a speed in excess of the appropriate maximum working speed as specified by the manufacturer.

(7) An employer shall ensure that—

- (a) the speed of every air-driven spindle on which an abrasive wheel is mounted is controlled by a governor or other device which prevents the speed of the spindle from exceeding the maximum working speed for that spindle as specified by the manufacturer, and
- (b) the governor or other device referred to in subparagraph (a) is properly maintained.

(8) An employer shall, when requested to do so by an inspector, provide the inspector with all such facilities and information as are necessary to enable that inspector determine the working speed of any spindle or abrasive wheel.

(9) In this Regulation “overhang”, in relation to a mounted wheel or point, means that part of the mandrel or quill which is exposed between the collet in which the mandrel or quill is held and the part of the abrasive material nearest to the collet.

(10) (a) This Regulation does not apply to an abrasive wheel within the meaning of paragraph (c) of the definition of abrasive wheel.

(b) Paragraphs (1), (2), (3) and (4) do not apply to an abrasive wheel having separate segments of abrasive material.

(c) Paragraphs (5), (6) and (7) do not apply to an abrasive wheel when it is used for grinding glass.

*Mounting of abrasive wheels.*

212. An employer shall ensure that every abrasive wheel is properly mounted.

*Authorisation and training.*

213. (1) Subject to paragraphs (3) and (4), an employer shall ensure that an employee does not mount an abrasive wheel unless the employee has been authorised by the employer to mount the abrasive wheel or a class of abrasive wheel to which that wheel belongs.

(2) A person who stands appointed under Regulation 9 of the Safety in Industry (Abrasive Wheels) Regulations 1982 (S.I. No. 30 of 1982) immediately prior to the coming into operation of this Part shall, on the coming into operation of this Part, be taken to be authorised under paragraph (1) and these Regulations shall apply accordingly.

(3) An employer shall not authorise an employee under paragraph (1) unless that employee—

- (a) has been trained and instructed in accordance with Schedule 14, and

(b) is competent to mount the wheel.

(4) Paragraph (1) does not apply where the employee referred to in that paragraph is undergoing training in mounting abrasive wheels and is working under the immediate supervision of an employee authorised under that paragraph.

(5) An employer shall enter details of each authorisation under paragraph (1) including particulars of the abrasive wheel or the class of abrasive wheel, as the case may be, to which the authorisation relates, in the safety statement prepared by the employer.

(6) An employer may revoke an authorisation under paragraph (1) at any time and where the employer does so shall amend the details included in the safety statement in accordance with paragraph (5).

*Guarding and rests for workpieces and flanges.*

214. (1) An employer shall ensure that a guard is provided and kept in position at every abrasive wheel in motion, unless the use of a guard would be impracticable due to the nature of—

- (a) the work being done at the wheel,
- (b) the work ordinarily done or intended to be done at the wheel, or
- (c) the wheel itself.

(2) An employer shall ensure that every guard provided under paragraph (1)—

- (a) in so far as is reasonably practicable, is of such a design and construction so as to contain every part of the abrasive wheel in the event of a fracture of the wheel, or of any part of the wheel, while that wheel is in motion,
- (b) is properly maintained and secured so as to prevent the displacement of the guard in the event of any such fracture, and
- (c) encloses the whole of the abrasive wheel except where a part of the wheel is necessarily exposed—
  - (i) for any work being done at the wheel, or
  - (ii) for work which is ordinarily done, or ordinarily intended to be done, at the wheel where a non adjustable guard is used.

(3) An employer shall ensure that where at any abrasive wheel there is a rest for supporting a workpiece, the rest is of substantial construction, properly maintained and properly secured and adjusted so as to

be as close as practicable to the exposed part of the abrasive wheel at all times while the wheel is in motion.

(4) An employer shall provide an abrasive wheel with a suitable protective flange or flanges, as the case may be, where such is necessary for the safe operation of the abrasive wheel.

(5) (a) Subparagraphs (a) and (b) of paragraph (2) do not apply to an abrasive wheel—

(i) manufactured of metal, wood, cloth, felt, rubber or paper and having any surface consisting wholly or partly of abrasive material, or

(ii) consisting wholly of abrasive particles held together by natural bonds.

(b) Paragraphs (1) and (2) do not apply to an abrasive wheel—

(i) which does not exceed 235 millimetres in diameter, is manufactured of cloth, felt, rubber or paper and has any surface consisting wholly or partly of abrasive material, when the wheel is used in a portable machine, or

(ii) when it is used for grinding glass.

## PART 13

### ABRASIVE BLASTING OF SURFACES.

#### *Interpretation for Part 13.*

215. In this Part—

“blasting” means the cleaning, smoothing, roughening or removing of part of any surface by the use as an abrasive of a jet of sand, metal shot, grit or other material, propelled by a blast of compressed air or steam or by a wheel;

“blasting enclosure” means—

(a) a chamber, barrel, cabinet or other similar enclosure designed for blasting, or

(b) any enclosure in which blasting is done;

“blasting chamber” means a blasting enclosure which a person can enter into;

“HEPA” means high efficiency particulate air.

*Application of Part 13.*

216. (1) (a) This Part, other than Regulations 222 and 223, apply to all places of work in which blasting is done.

(b) Regulations 222 and 223 apply in relation to blasting in any place of work for the purpose of cleaning of castings.

(2) In this Part, “cleaning of castings” means cleaning which is an incidental or supplemental process in connection with the making of metal castings, the freeing of the castings from adherent sand or other substances and includes the removal of cores and the general smoothing of the castings where such freeing is done, but does not include the freeing of castings from scale formed during annealing or heat treatment.

*Provision of blasting apparatus, enclosures and ventilating plant.*

217. Without prejudice to Regulation 28, an employer shall ensure that any blasting apparatus, blasting enclosure and associated ventilating plant is installed, equipped, adapted and maintained so as to minimise the risk of personal injury to employees and other persons.

*Prohibition on silica.*

218. An employer shall ensure that no sand or other substance containing free silica is introduced as an abrasive into any blasting apparatus.

*Protection of employees and other persons.*

219. An employer shall ensure, as far as reasonably practicable, that all necessary measures are taken to protect employees and other persons against inhalation of dust emitted in connection with blasting.

*Persons under 18 years of age.*

220. (1) Without prejudice to the generality of the requirements of Chapter 1 of Part 6 an employer shall ensure that no person under the age of 18 years of age is employed, except for the purposes of training or instruction—

(a) in any blasting operation,

(b) to assist in any blasting operation,

(c) in any blasting chamber, or

(d) in cleaning, maintaining or repair of any blasting apparatus, blasting enclosure or ventilating plant connected with the enclosure.

(2) An employer shall ensure that no person under the age of 18 years of age works within six metres of a blasting enclosure when blasting is being carried out by means of compressed air or steam unless-

- (a) the enclosure is in a room, and
- (b) the person is not exposed to any dust coming from that enclosure.

*Personal protective equipment.*

221. (1) Without prejudice to the requirements of Chapter 3 of Part 2, an employer shall provide an appropriate protective helmet to each employee engaged—

- (a) in blasting,
- (b) to work in a blasting chamber, or
- (c) to clean the inside of a blasting chamber.

(2) An employer shall ensure that the helmets provided under paragraph (1) are properly maintained.

(3) An employer shall ensure that every employee while engaged in an activity referred to in paragraph (1)—

- (a) wears the protective helmet provided, and
- (b) does not remove that helmet until the blasting has ceased, or that employee has ceased working in or cleaning the blasting chamber and is outside that chamber, as the case may be.

(4) An employer shall ensure that each helmet provided under paragraph (1), when in use, is supplied with uncontaminated breathable air.

(5) An employer shall ensure that—

- (a) suitable gauntlets and overalls are provided for the use of all employees engaged in blasting or assisting in any blasting operation, and
- (b) every employee while blasting, or assisting in any blasting operation, wears the gauntlets and overalls provided.

(6) An employer shall ensure that—

- (a) adequate, clean and suitable storage space is provided outside, and conveniently near to, every blasting enclosure, for the helmets, gauntlets and overalls provided under this Regulation, and
- (b) the helmets, gauntlets and overalls, when not in use, are stored in that storage space.



(7) An employee shall ensure that any helmet, gauntlets, overalls and any other protective devices or clothing provided to the employee are—

- (a) worn for the purposes for which they are intended,
- (b) kept in good condition, and
- (c) freed from dust after use in so far as is reasonably practicable.

(8) Where dust arising from the cleaning of helmets, gauntlets, overalls and other protective devices or clothing provided by an employer in accordance with these Regulations is likely to be inhaled by any person, the employer shall ensure, in so far as is reasonably practicable, that—

- (a) measures are taken to prevent such inhalation,
- (b) vacuum cleaners with a HEPA filter are used for removing dust,
- (c) compressed air is not used for removing dust, and
- (d) any person carrying out the cleaning is provided with all relevant information about the hazards of dust inhalation.

*Blasting enclosures for cleaning of castings.*

222. (1) An employer shall ensure that blasting is only carried out in a blasting enclosure.

(2) An employer shall ensure that the only work carried out in a blasting enclosure is—

- (a) blasting and work immediately incidental to blasting, and
- (b) the cleaning and repairing of the enclosure and any plant and appliances situated in the enclosure.

(3) An employer shall ensure that every door of a blasting enclosure is kept closed while blasting is being carried out.

(4) An employer shall ensure that blasting enclosures are maintained in good condition and that all reasonably practicable measures are taken to prevent dust escaping from such enclosures into the air of any other room.

(5) An employer shall ensure that there is provided and maintained, in connection with every blasting enclosure, efficient apparatus for separating, in so far as is reasonably practicable, an abrasive which has been used in a blasting apparatus and which is to be used again as an

abrasive in a blasting apparatus, from dust or particles of other material arising from blasting.

(6) An employer shall ensure that an abrasive referred to in paragraph (5) is not used again in a blasting apparatus until it has been separated in accordance with that paragraph.

(7) An employer shall provide and maintain an efficient ventilating plant for each blasting enclosure to—

(a) extract any dust produced in the enclosure by exhaust draught effected by mechanical means, and

(b) remove and dispose of that dust so that it does not escape into the air of any other room.

(8) An employer shall ensure that any ventilating plant provided under paragraph (7) is kept in continuous operation whenever—

(a) the blasting enclosure is in use whether or not blasting is taking place in the enclosure, or

(b) a blasting chamber is in operation and when any person is inside the chamber for the purpose of cleaning or repairing work.

(9) An employer shall ensure that each of the employer's blasting enclosures is inspected by a competent person at least once every week to ensure that each enclosure is in good working order.

(10) An employer shall ensure that at least once a month a competent person—

(a) examines each of the employer's blasting enclosures, the apparatus connected with each such enclosure and any ventilating plant provided under paragraph (7), for defects, and

(b) tests each ventilating plant of the employer to monitor its performance.

(11) An employer shall ensure that the results of any inspection, examination and test carried under paragraphs (9) and (10) are kept by the employer, and made available for inspection by the employees of the employer and any inspector for a period of one year from the date of inspection, examination or test, as the case may be.

(12) An employer shall ensure that results kept in accordance with paragraph (11) are available for inspection for the period referred to in that paragraph by any other person engaged in, or in connection with, blasting at that location.

(13) A competent person who carries out an inspection, examination or test under paragraph (9) or (10) shall notify the employer concerned as soon as practicable of any defect found on such inspection, examination or test.

(14) An employer shall, as soon as practicable after any defect is notified to the employer under paragraph (13), remedy that defect.

(15) A register kept by an employer in accordance with Regulation 18 of the Factories (Abrasive Blasting of Surfaces) Regulations 1974 (S.I. No. 357 of 1974) shall, on the coming into operation of these Regulations, be kept for a period of one year after that coming into operation and the information contained in that register shall continue to be available for inspection by an inspector, any employee or any other person engaged in, or in connection with, blasting for that period.

*Cleaning blasting enclosures, blasting apparatus and ventilating plant.*

223. (1) An employer shall ensure that all reasonably practicable measures are taken to prevent inhalation of dust arising from blasting by any person engaged in—

- (a) cleaning any blasting enclosure,
- (b) cleaning any blasting apparatus or ventilating plant connected with any blasting enclosure,
- (c) cleaning the surroundings of any blasting enclosure, or
- (d) any other work relating to any blasting enclosure, blasting apparatus or ventilating plant connected with any blasting enclosure.

(2) An employer shall ensure that all reasonably practicable measures are taken to dispose of dust in such a manner that the dust does not enter the air of any room where the dust arises as a result of—

- (a) the cleaning operations referred to in paragraph (1), or
- (b) the removal of dust from filtering or settling devices.

(3) An employer shall ensure that, wherever practicable, vacuum cleaners with a HEPA filter are provided, maintained and used for the cleaning operations referred to in paragraph (1).”.

(d) by the insertion of the following Schedule after Schedule 12:

## “SCHEDULE 13

## WOODWORKING MACHINES

**Regulation 195**

1. Any sawing machine designed to be fitted with one or more circular blades.
2. Any sawing machine designed to be fitted with a blade in the form of a continuous band or strip.
3. Automatic and semi-automatic lathes.
4. Boring machines.
5. Chain sawing machines.
6. Grooving machines.
7. Mortising machines.
8. Multi-cutter moulding machines having two or more cutter spindles.
9. Planing machines.
10. Trenching machines.
11. Tenoning machines.
12. Vertical spindle moulding machines.

## SCHEDULE 14

## TRAINING AND INSTRUCTION

**Regulation 213**

Where an employer proposes to give an authorisation under Regulation 213 to an employee, the employer shall ensure that the employee is trained and instructed—

1. in relation to each abrasive wheel, or class of abrasive wheel, in respect of which the authorisation is proposed, on the following matters:

(1) proper methods relating to the mounting of the abrasive wheel or class of abrasive wheel, as the case may be;

(2) hazards arising from the use of the abrasive wheel or class of abrasive wheels, as the case may be, and precautions which should be observed;

(3) methods of marking an abrasive wheel or class of abrasive wheel, as the case may be, as to type and speed;

(4) methods of storing, handling and transporting the abrasive wheel or class of abrasive wheel, as the case may be;

(5) methods of inspecting and testing the abrasive wheel, or class of abrasive wheels, as the case may be, to check for damage;

(6) the functions of all components used with the abrasive wheel, or class of abrasive wheel, as the case may be, including flanges, washers, bushes and nuts used in mounting, and knowledge of the correct and incorrect methods of assembling all components and of correct balancing of the abrasive wheel, or class of abrasive wheel, as the case may be;

(7) the proper method of dressing the abrasive wheel, or class of abrasive wheel, as the case may be;

(8) the adjustment of the rest of the abrasive wheel or class of abrasive wheel, as the case may be;

(9) the use of advisory literature relating to the mounting of the abrasive wheel, or class of abrasive wheel, and

2. on the requirements of Part 12.”.

GIVEN under my hand,  
27 January 2016.

GERALD NASH,  
Minister of State at the Department of Jobs, Enterprise and  
Innovation.

## EXPLANATORY NOTE

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

These Regulations amend the Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007) as previously amended by the Safety, Health and Welfare at Work (General Application) (Amendment) Regulations 2007 (S.I. No. 732 of 2007), the Safety, Health and Welfare at Work (General Application)(Amendment) Regulations 2010 (S.I. No. 176 of 2010) and the Safety, Health and Welfare at Work (General Application)(Amendment) Regulations 2012 (S.I. No. 445 of 2012) by inserting Part 11 (Woodworking Machines), Part 12 (Abrasive Wheels) and Part 13 (Abrasive Blasting of Surfaces) as well as adding Schedule 13 (Woodworking Machines) and Schedule 14 (Training and Instruction) to the Regulations. The collective Regulations shall be cited together as the Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2016.

The purpose of the Regulations is to bring specific workplace safety matters relating to Woodworking Machines, Abrasive Wheels and Abrasive Blasting of Surfaces within the scope of the Safety, Health and Welfare at Work Act 2005 following the repeal of corresponding Regulations made under the Factories Act 1955, as amended by the Safety in Industry Act 1980.

The Regulations are designed to retain, by means of amendments to the Safety, Health and Welfare at Work (General Application) Regulations 2007, the aspects of the provisions of Regulations under the Factories Act that remain relevant and are therefore reproduced in line with the new legislative format.

These Regulations revoke and replace 3 individual sets of Regulations—

- (a) Factories (Woodworking Machinery) Regulations, 1972. (S.I. No. 203 of 1972),
- (b) Factories (Abrasive Blasting Of Surfaces) Regulations, 1974. (S.I. No. 357 of 1974), and
- (c) Safety in Industry (Abrasive Wheels) Regulations, 1982. (S.I. No. 30 of 1982).

These Regulations shall come into operation from 1 July 2016.

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