

1962 No. 1667

FACTORIES

Non-ferrous Metals (Melting and Founding) Regulations 1962

<i>Made</i> - - - -	30th July 1962
<i>Laid before Parliament</i>	8th August 1962
<i>Coming into Operation</i>	30th January 1963
except Regulations 1 (2), 6, 11, 14, 15 and 16 <i>which come into operation</i> <i>on</i> - - - -	
	30th July 1964

The Minister of Labour—

- (a) by virtue of the powers conferred on him by sections 62, 76 and 180 (6) and (7) of the Factories Act 1961(a) and of all other powers enabling him in that behalf ; and
- (b) after publishing, pursuant to Schedule 4 to the said Act of 1961, notice of the proposal to make the Regulations and not having received any objection to the draft in regard to which he is required by the said Schedule to direct an inquiry to be held,

hereby makes the following special Regulations:—

PART I

PROVISIONS WHICH APPLY TO ALL PREMISES COMING WITHIN THE SCOPE OF THE REGULATIONS

Citation, commencement and revocation

1.—(1) These Regulations may be cited as the Non-ferrous Metals (Melting and Founding) Regulations 1962. These Regulations shall come into operation on 30th January 1963 with the exception of the following provisions which shall come into operation on 30th July 1964, namely, paragraph (2) of this Regulation, and Regulations 6, 11, 14, 15 and 16.

(2) The Regulations(b) dated 20th June 1908 with respect to the casting of brass are hereby revoked.

Interpretation

2.—(1) The Interpretation Act 1889(c) shall apply to the interpretation of these Regulations as it applies to the interpretation of an Act of Parliament, and as if these Regulations and the Regulations hereby revoked were Acts of Parliament.

(2) For the purposes of these Regulations, unless the context otherwise requires, the following expressions have the meanings hereby assigned to them respectively, that is to say—

“approved” means approved for the time being by certificate of the Chief Inspector ;

“degrees” means degrees Fahrenheit ;

“dressing operations” includes fettling, stripping and other removal of adherent sand, cores, runners, risers, flash and other surplus metal from a casting and the production of a reasonably clean and smooth surface,

(a) 9 & 10 Eliz. 2. c. 34.

(b) S.R. & O. 1908/484 (Rev. VII, p. 186: 1908, p. 333).

(c) 52 & 53 Vict. c. 63.

but does not include (a) the removal of metal from a casting when performed incidentally in connection with the machining or assembling of castings after they have been dressed or (b) any operation which is a knock-out operation within the meaning of these Regulations ;

“ knock-out operations ” means all methods of removing castings from moulds and the following operations when done in connection therewith, namely, stripping, coring-out and the removal of runners and risers ;

“ person employed ” means a person employed in the processes ;

“ pouring aisle ” means an aisle leading from a main gangway or directly from a furnace to where metal is poured into moulds ;

“ the principal Act ” means the Factories Act 1961 as amended by or under any other Act ;

“ the processes ” means all or any of the operations or processes specified in Regulation 3 (1) or (2) being operations or processes to which these Regulations apply.

Application of Regulations

3.—(1) Subject to paragraph (3) of this Regulation, the whole of these Regulations shall apply to those parts of all factories in which any of the following operations and processes are carried on, or which are used in connection with any such operations and processes, that is to say—

(a) any operation (not being an operation to which paragraph (2) of this Regulation applies) in the production of non-ferrous castings by casting metal in moulds made of sand, loam, metal, moulding composition or other material or mixture of materials, or by shell moulding, die-casting (including pressure diecasting), centrifugal casting or continuous casting ; and

(b) where carried on as incidental processes in connection with and in the course of production to which sub-paragraph (a) applies, the preparation and mixing of materials, the preparation of moulds and cores (but not the making of patterns or dies in a separate room not used for any of the processes), knock-out operations and dressing operations.

(2) Subject to paragraph (3) of this Regulation, the provisions of Part I of these Regulations (and only those provisions) shall apply to those parts of all factories in which are carried on the melting and casting of non-ferrous metal for the production of ingots, billets, slabs or other similar products, or the stripping thereof ; so, however, that the whole of these Regulations shall apply to any such part in which there is also carried on any of the operations or processes specified in paragraph (1) of this Regulation.

(3) Nothing in these Regulations shall apply with respect to—

(a) any process to which either of the following Regulations apply, that is to say, the Regulations(a) dated 12th August 1911 with respect to the smelting and manufacture of lead and the Electric Accumulator Regulations 1925(b) ; or

(b) any process for the purposes of a printing works ; or

(c) any smelting process in which metal is obtained by a reducing operation or any process incidental to such operation ; or

(d) any process in the course of the manufacture of solder or any process incidental to such manufacture ; or

(a) S.R. & O. 1911/752 (Rev. VII, p. 369: 1911, p. 55).

(b) S.R. & O. 1925/28 (Rev. VII, p. 296: 1925, p. 337).

- (e) the melting and casting of lead or any lead-based alloy for the production of ingots, billets, slabs or other similar products, or the stripping thereof, or any process incidental to such melting, casting or stripping.
- (4) Save as expressly provided in Regulation 11 (5) and Regulation 15 (6), the provisions of these Regulations shall be in addition to and not in substitution for or in diminution of other requirements imposed by or under the principal Act.

Exemption certificates

4. The Chief Inspector may (subject to such conditions as may be specified therein) by certificate in writing (which he may in his discretion revoke at any time) exempt from all or any of the requirements of these Regulations—

- (a) any premises ; or
- (b) any class or description of premises ; or
- (c) any machine, plant, apparatus or process or any class or description of machines, plant, apparatus or processes ; or
- (d) the employment of any person or any class or description of persons, if he is satisfied that the requirements in respect of which the exemption is granted can be suspended or relaxed without danger to the health or safety of persons employed or are for any reason impracticable or inappropriate. Where such exemption is granted a legible copy of the certificate, showing the conditions (if any) subject to which it has been granted, shall be kept posted in a position where it may be conveniently read by the persons employed.

Cleanliness of floors

5. Effective cleaning by a suitable method shall be carried out at least once every working day of all accessible parts of the floor of every indoor workplace in which the processes are carried on, other than parts which are of sand ; and the parts which are of sand shall be kept in good order.

Construction of floors

6.—(1) Floors of indoor workplaces in which the processes are carried on, other than parts which are of sand, shall have an even surface of hard material.

(2) No part of the floor of any such indoor workplace shall be of sand except where this is necessary by reason of the work done.

(3) All parts of the surface of the floor of any such indoor workplace which are of sand shall, so far as practicable, be maintained in an even and firm condition.

Manual operations involving molten metal

7.—(1) There shall be provided and properly maintained for all persons employed on manual operations involving molten metal with which they are liable to be splashed, a working space for that operation—

- (a) which is adequate for the safe performance of the work ; and
- (b) which, so far as reasonably practicable, is kept free from obstruction.
- (2) Any operation involving the carrying by hand of a container holding molten metal shall be performed on a floor all parts of which where any person walks while engaged in the operation shall be on the same level :

Provided that, where necessary to enable the operation to be performed without undue risk, nothing in this paragraph shall prevent the occasional

or exceptional use of a working space on a different level from the floor, being a space provided with a safe means of access from the floor for any person while engaged in the operation.

Disposal of dross and skimmings

8. Dross and skimmings removed from molten metal or taken from a furnace shall be placed forthwith in suitable receptacles.

Arrangement and storage

9.—(1) Subject to paragraph (3) of this Regulation, and (in the case of parts of factories of the kind specified in Regulation 3 (1) to Regulation 19, all raw materials and all dies, patterns, pattern plates, core boxes, core plates, grids, moulding boxes, loam plates and ladles, and all other heavy equipment, shall be so arranged and placed as to enable work to be carried on without unnecessary risk.

(2) Suitable and conveniently accessible racks, bins or other receptacles shall be provided and used for the storage of all other gear and tools.

(3) Where scrap metal, sand, fuel or other similar loose materials are stored indoors, suitable bins, bunkers or other receptacles shall be provided and used for such storage.

Gangways and pouring aisles

10.—(1) In every workroom to which this Regulation applies, where necessary for the safe carrying of molten metal for pouring into moulds, sufficient and clearly defined pouring aisles shall be provided which shall be properly maintained and, so far as reasonably practicable, be kept free from obstruction and which—

- (a) if molten metal is carried in hand ladles or bull ladles by not more than two men per ladle, shall be at least eighteen inches wide, but where any moulds alongside the aisle are more than twenty inches above the floor of the aisle, the aisle shall be not less than twenty-four inches wide;
- (b) if molten metal is carried in hand ladles or bull ladles by more than two men per ladle, shall be at least thirty inches wide;
- (c) if molten metal is carried in crane, trolley or truck ladles, shall be of a width adequate for the safe performance of the work.

All measurements of the width of an aisle shall be taken between the extreme ends of the box handles or other projections into the aisle.

(2) In every workroom to which this Regulation applies, constructed, reconstructed or converted for use as such after the making of these Regulations and, so far as reasonably practicable, in every other workroom to which this Regulation applies, sufficient and clearly defined main gangways shall be provided and properly maintained which—

- (a) shall be at least three feet wide;
- (b) shall, so far as reasonably practicable, be kept free from obstruction; and
- (c) if used for carrying molten metal shall—
 - (i) where truck ladles are used, be at least two feet wider than the overall width of the ladle;
 - (ii) where hand shanks are carried by more than two men per hand shank, be at least four feet wide; and
 - (iii) where used for simultaneous travel in both directions by men carrying hand shanks, be at least six feet wide.

(3) In this Regulation the expression "workroom to which this Regulation applies" means a part of a factory in which molten metal is transported or used, and a workroom to which this Regulation applies shall be deemed for the purposes of this Regulation to have been constructed, reconstructed or converted for use as such after the making of these Regulations if the construction, reconstruction or conversion thereof was begun after the making of these Regulations.

Dust and fumes

11.—(1) So far as reasonably practicable, the inhalation by the persons employed of any dust or fumes shall be prevented by such one or more of the following methods as may be necessary, that is to say, elimination, suppression and control of such dust and fumes otherwise than by the wearing of respirators.

(2) Without prejudice to the preceding paragraph of this Regulation, knock-out or dressing operations from which the dust or fumes given off are not effectively eliminated, suppressed or controlled, shall be carried on—

(a) in a separate room or in a separate part of the factory suitably partitioned off or,

(b) where the foregoing is not reasonably practicable, in a separate area of the factory, so, however, that, so far as reasonably practicable, the knocking-out or dressing of dry sand castings shall not be carried out in the same room at the same time as any moulding process.

(3) Open solid fuel fires shall not be used for any purpose unless effective provision is made for preventing any fumes arising therefrom from entering the air of any workroom.

(4) Mould dryers, other than electrically heated mould dryers, shall not be used expressly for the purpose of heating workrooms.

(5) The provisions of this Regulation shall be in substitution for so much of section 63 of the principal Act as requires exhaust appliances to be provided and maintained.

Maintenance and examination of exhaust plant

12.—(1) All ventilating plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be properly maintained.

(2) All ventilating plant used for the purpose of extracting, suppressing or controlling dust or fumes shall be thoroughly examined and tested by a competent person at least once in every period of six months; and particulars of the results of every such examination and test shall be entered in an approved register which shall be available for inspection by any person employed affected thereby. Any defect found on any such examination and test shall be immediately reported in writing by the person carrying out the examination and test to the occupier, manager or other appropriate person.

Protective equipment

13.—(1) There shall be provided and maintained suitable protective equipment of the types and for the operations or work respectively hereafter in this Regulation specified for the protection of persons employed in any such operations or work, that is to say—

(a) suitable gloves or other suitable protection for the hands for persons employed in handling any hot material likely to cause damage to the hands by burn, scald or sear, or in handling rough or irregular material likely to cause damage to the hands by cut or abrasion;

(b) without prejudice to the requirements of Regulation 11 (1), respirators of an approved type for persons employed in work in an area where there is a heavy concentration of dust ;

(c) suitable goggles or other suitable eye protection for persons employed in—

(i) work at a furnace where there is risk to the eyes from molten metal ; or

(ii) pouring or skimming ; or

(iii) work involving risk to the eyes from hot sand being thrown off.

(2) Where appropriate, suitable screens shall be provided for protection against flying materials (including splashes of molten metal and sparks and chips thrown off in the course of any process).

(3) A type of respirator may be approved for all or any of the purposes of paragraph (1) (b) of this Regulation. Each respirator provided for the purposes of the said paragraph (1) (b) shall carry a distinguishing mark indicating the person by whom it is intended to be used, and no person shall wear or be required to wear a respirator not carrying his mark or a respirator which has been worn by another person and has not since been thoroughly disinfected.

(4) Every person employed shall make full and proper use of the equipment provided for his protection in pursuance of paragraphs (1) and (2) of this Regulation, and shall without delay report to the occupier, manager or other appropriate person any defect in, or loss of, the same.

Temperature

14. The temperature of that part of a room where work is being carried on (other than a separate storeroom not used for any of the processes) shall, after the first hour, be not less than fifty degrees ; but when the outside temperature is less than thirty degrees it shall suffice if the temperature at that part is not less than twenty degrees higher than the outside temperature.

Washing facilities and clothing accommodation

15.—(1) There shall be provided and maintained for the use of all the persons employed adequate and suitable facilities for washing which shall be conveniently accessible and shall include a sufficient supply of clean towels or other suitable means of drying and of soap and nail brushes, and basins or troughs with running hot and cold or warm water.

(2) The basins and troughs required to be provided and maintained by paragraph (1) of this Regulation shall satisfy the following requirements—

(a) basins and troughs shall have a smooth impervious upper surface ;

(b) each basin shall be fitted with a waste pipe and plug ;

(c) each trough shall be fitted with suitable taps or jets at intervals of not more than two feet and with a waste pipe without plug ;

(d) basins and troughs shall be sufficient in number and dimensions to provide at least one unit for every ten persons employed at any one time.

(3) For the purposes of this Regulation—

(a) a " unit " means one basin or two feet of the length of a trough or, in the case of circular or oval troughs, two feet of the circumference of a trough ;

(b) in dividing by ten for the purpose of finding the number of units required, any remainder shall be counted as ten ;

(c) a basin or other receptacle shall not be reckoned as a trough unless it measures internally at least four feet over its longest or widest part.

(4) In addition there shall be provided and maintained for the use of all the persons employed on hot, dirty or arduous work, adequate and suitable facilities for taking shower or other baths with suitable arrangements for privacy (including, in close proximity to such facilities, adequate and suitable accommodation for dressing, undressing or changing clothes, and an adequate number of lockers or other suitable arrangements for the accommodation of clothing belonging to persons using the baths) and such arrangements as are reasonably practicable for drying clothing belonging to persons using the baths.

(5) The facilities and accommodation provided in pursuance of this Regulation shall be placed in the charge of a responsible person or persons, be maintained in a clean and orderly condition, and shall, so far as reasonably practicable, be separate from any workroom.

(6) The provisions of this Regulation shall be in substitution for the provisions of section 58 (1) of the principal Act (which relates to washing facilities).

Facilities for meals

16.—(1) There shall be provided and maintained for the use of the persons employed adequate and suitable accommodation for taking meals which accommodation shall be properly heated and shall include sufficient tables and seats and facilities for the warming of the food of persons employed and for boiling water.

(2) No person shall be permitted to take a main meal in any indoor workroom in which the processes are carried on and it shall be the duty of every person employed not to take a main meal in any such indoor workroom.

PART II

PROVISIONS WHICH APPLY ONLY TO THE PREMISES SPECIFIED IN REGULATION 3 (1)

Cleanliness of indoor workplaces

17. All accessible parts of the walls of every indoor workplace in which the processes are carried on and of everything affixed to those walls shall be effectively cleaned by a suitable method to a height of not less than fourteen feet from the floor at least once in every period of fourteen months. A record of the carrying out of every such effective cleaning in pursuance of this paragraph including the date (which shall be not less than five months nor more than nine months after the last immediately preceding washing, cleaning or other treatment in pursuance of section 1 (3) of the principal Act) shall be entered in an approved register.

Dressing operations

18. All dressing operations shall be carried out inside a weather-proof building.

Disposal of waste

19. Appropriate measures shall be taken for the disposal of all waste products from shell moulding (including waste burnt sand) as soon as reasonably practicable after the castings have been knocked-out.

Material and equipment left out of doors

20. All material and equipment left out of doors (including material and equipment so left only temporarily or occasionally) shall be so arranged and placed as to avoid unnecessary risk. There shall be safe means of access to all such material and equipment and, so far as reasonably practicable, such access shall be by roadways or pathways which shall be properly maintained. Such roadways or pathways shall have a firm and even surface and shall, so far as reasonably practicable, be kept free from obstruction.

Dated 30th July 1962.

John Hare,
Minister of Labour.

EXPLANATORY NOTE

(This Note is not part of the Regulations, but is intended to indicate their general purport.)

These Regulations make provision for the safety, health and welfare of persons employed in the melting or founding of non-ferrous metals.