1964. No. 46 **[C]**

FACTORIES

Non-Ferrous Metals (Melting and Founding)

REGULATIONS, DATED 23RD MARCH, 1964, MADE BY THE MINISTRY OF LABOUR AND NATIONAL INSURANCE UNDER THE FACTORIES ACTS (NORTHERN IRELAND) 1938 TO 1959.

The Ministry of Labour and National Insurance for Northern Ireland in exercise of powers conferred by sections 47 and 65 of the Factories Act (Northern Ireland) 1938(**a**), section 8 of the Factories Act (Northern Ireland) 1949(**b**), section 28 of the Factories Act (Northern Ireland) 1959(**c**) and of all other powers in that behalf, hereby makes the following special Regulations:—

PART I

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

Citation, Commencement and Revocation

1.—(1) These Regulations may be cited as the Non-ferrous Metals (Melting and Founding) Regulations (Northern Ireland) 1964. These Regulations shall come into operation on 1st September, 1964, with the exception of the following provisions which shall come into operation on 23rd March, 1965, namely, paragraph (2) of this Regulation and Regulations 6, 11, 14, 15 and 16.

(2) The Regulations(**d**) dated 20th June, 1908, with respect to the casting of brass are hereby revoked so far as they relate to Northern Ireland.

Interpretation

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 Farenheit;

"dressing operations" includes fitting, 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, 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;

(**a**) 2 Geo. 6. c. 23 (N.I.).
(**b**) 1949. c. 6.
(**c**) 1959. c. 16.
(**d**) S.R. & O. 1908/484.

"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 (Northern Ireland) 1938 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 operations (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, diecasting (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 Special Regulations (Northern Ireland) 1945(**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

(*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.

(**a**) S.R. & O. 1911/752. (**b**) S.R. & O. (N.I.) 1945, No. 41.

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