
S T A T U T O R Y I N S T R U M E N T S

1953 No. 1464

FACTORIES

The Iron and Steel Foundries Regulations, 1953

Made - - - - - 1st October, 1953

Laid before Parliament 3rd October, 1953

Coming into Operation 1st January, 1954

The Minister of Labour and National Service by virtue of the powers conferred on him by sections 46 and 60 of the Factories Act, 1937(a), section 8 of the Factories Act, 1948(b), and the Transfer of Functions (Factories, &c., Acts) Order, 1946(c), and of all other powers in that behalf, hereby makes the following Special Regulations:—

Citation and commencement

1. These Regulations may be cited as the Iron and Steel Foundries Regulations, 1953, and save as provided in Regulations 7 and 9 of these Regulations shall come into operation on the 1st January, 1954.

Interpretation

2.—(1) The Interpretation Act, 1889(d), shall apply to the interpretation of these Regulations as it applies to the interpretation of an Act 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 respirator” means a respirator of a type for the time being approved in writing by the Chief Inspector for all or any of the purposes of Regulation 8 (1) (b) of these Regulations;

“cupola or furnace” includes a receiver associated therewith;

“dressing or fettling operations” includes 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 fettled, or (b) any operation which is a knock-out operation within the meaning of these Regulations;

“iron foundry” and “steel foundry” mean those parts of a factory in which the production of iron castings or, as the case may be, steel castings (not being the production of pig iron or the production of steel in the form of ingots and not including die-casting) is carried on by casting in moulds made of sand, loam, moulding composition or other mixture of materials, or by shell moulding, or by centrifugal casting in metal moulds lined with sand, together with any part of the factory in which any of the

(a) 1 Edw. 8 & 1 Geo. 6, c. 67.

(c) S.R. & O. 1946/376; Rev. VII, p. 88; 1946 I, p. 1006.

(b) 11 & 12 Geo. 6, c. 55.

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

following processes are carried on as incidental processes in connection with, and in the course of, such production, namely, the preparation and mixing of materials used in the foundry process, the preparation of moulds and cores, knock-out operations and dressing or fettling operations ;

“ 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 ;

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

“ principal Act ” means the Factories Act, 1937, as amended by or under any other Act ;

“ steel foundry ” has the meaning assigned to it earlier in this paragraph.

Application and operation of Regulations

3.—(1) These Regulations shall apply to all iron foundries and steel foundries.

(2) Subject to the provisions of this paragraph, 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 :

Provided that so much of section 47 of the principal Act as requires exhaust appliances to be provided and maintained shall not apply in relation to dust resulting in any iron or steel foundry from any knock-out operations or any dressing or fettling operations if the provisions of paragraphs (5) or (6), as the case may be, of Regulation 7 are complied with in the case of those operations.

Arrangement and storage

4. For the purposes of promoting safety and cleanliness in workrooms the following requirements shall be observed—

(a) moulding boxes, loam plates, ladles, patterns, pattern plates, frames, boards, box weights, and other heavy articles shall be so arranged and placed as to enable work to be carried on without unnecessary risk ;

(b) suitable and conveniently accessible racks, bins or other receptacles shall be provided and used for the storage of other gear and tools ;

(c) where there is bulk storage of sand, fuel, metal scrap or other materials or residues, suitable bins, bunkers or other receptacles shall be provided for the purpose of such storage.

Work near cupolas and furnaces

5. No person shall carry out any work within a distance of twelve feet from a vertical line passing through the delivery end of any spout of a cupola or furnace, being a spout used for delivering molten metal, or within a distance of eight feet from a vertical line passing through the nearest part of any ladle which is in position at the end of such a spout, except, in either case, where it is necessary for the proper use or maintenance of a cupola or furnace that that work should be carried out within that distance or that work is being carried out at such a time and under such conditions that there is no danger to the person carrying it out from molten metal which is being obtained from the cupola or furnace or is in a ladle in position at the end of the spout.

Gangways and pouring aisles

6.—(1) 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 have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage ;
- (b) shall be kept so far as reasonably practicable free from obstruction ;
- (c) if not used for carrying molten metal, shall be at least three feet in width ;
- (d) if used for carrying molten metal shall be—
 - (i) where truck ladles are used exclusively, at least two feet wider than the overall width of the ladle ;
 - (ii) where hand shanks are carried by not more than two men, at least three feet in width ;
 - (iii) where hand shanks are carried by more than two men, at least four feet in width ; and
 - (iv) where used for simultaneous travel in both directions by men carrying hand shanks, at least six feet in width.

(2) (a) Subject to the provisions of sub-paragraph (c) of this paragraph, in every workroom to which this Regulation applies constructed, reconstructed or converted for use as such after the making of these Regulations, sufficient and clearly defined pouring aisles shall be provided and properly maintained which—

- (i) shall have an even surface of hard material and shall, in particular, not be of sand or have on them more sand than is necessary to avoid risk of flying metal from accidental spillage ;
- (ii) shall be kept so far as reasonably practicable free from obstruction ;
- (iii) shall be wide enough not to imperil the safety of persons carrying or pouring molten metal and shall in no case be less than eighteen inches in width.

(b) Subject as aforesaid, in every other workroom to which this Regulation applies, sufficient pouring aisles shall be provided and properly maintained which—

- (i) shall have a firm and even surface and shall be kept so far as reasonably practicable free from obstruction ;
- (ii) shall be wide enough not to imperil the safety of persons carrying or pouring molten metal, and shall be not less than eighteen inches in width.

(c) This paragraph shall not apply to any workroom or part of a workroom if, by reason of the nature of the work done therein, the floor of that workroom or, as the case may be, that part of a workroom has to be of sand.

(3) In this Regulation “workroom to which this Regulation applies” means a part of an iron foundry or steel foundry 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

7.—(1) Open coal, coke or wood fires of a portable nature shall not be used for the purpose of heating workrooms.

(2) Open coal, coke or wood fires shall not be used for heating or drying ladles inside a workroom unless adequate measures are taken to prevent, so far as practicable, fumes or other impurities from entering into or remaining in the atmosphere of the workroom.

(3) No open coal, coke or wood fires shall be used for drying moulds except in circumstances in which the use of such fires is unavoidable.

(4) Mould stoves, core stoves and annealing furnaces shall be so designed, constructed, maintained and worked as to prevent, so far as practicable, offensive or injurious fumes from entering into any workroom during any period when a person is employed therein.

(5) All knock-out operations shall be carried out—

(a) in a separate room or in a separate part of the foundry suitably partitioned off, being a room or part in which, so far as reasonably practicable, effective and suitable local exhaust ventilation and a high standard of general ventilation are provided; or

(b) in an area of the foundry in which, so far as reasonably practicable, effective and suitable local exhaust ventilation is provided, or where compliance with this requirement is not reasonably practicable, a high standard of general ventilation is provided.

(6) All dressing or fettling operations shall be carried out—

(a) in a separate room or in a separate part of the foundry suitably partitioned off; or

(b) in an area of the foundry set apart for the purpose; and shall, so far as reasonably practicable, be carried out with effective and suitable local exhaust ventilation or other equally effective means of suppressing dust, operating as near as possible to the point of origin of the dust.

(7) This Regulation shall come into operation on the 1st January, 1956.

Protective equipment

8.—(1) The occupier shall provide and maintain suitable protective equipment of the types and for the processes or work respectively hereinafter in this Regulation specified for the protection of workers engaged in any such process or work, that is to say,—

(a) suitable gloves or other protection for the hands for workers engaged in handling any hot material likely to cause damage to the hands by burn, scald or sear, or in handling pig iron, rough castings or other articles likely to cause damage to the hands by cut or abrasion;

(b) approved respirators for workers carrying out any operations creating a heavy dust concentration which cannot be dispelled quickly and effectively by the existing ventilation arrangements;

(c) suitable goggles or other eye protection for workers engaged in (i) working at a spout of, or attending to, a cupola or furnace where there is risk to the eyes from molten metal, (ii) pouring molten metal, or (iii) work involving risk to the eyes from hot sand being thrown off.

(2) Each respirator provided for the purposes of paragraph (1) (b) of this Regulation 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.

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

Bathing facilities and clothing accommodation

9.—(1) The occupier shall provide and maintain, for the use of persons employed in the foundry, adequate and suitable facilities for taking shower or other baths, with suitable arrangements for privacy (including, in close proximity to such facilities, 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.

(2) The facilities provided for the purposes of paragraph (1) of this Regulation shall be placed in charge of a responsible person or persons and maintained in a clean and orderly condition.

(3) This Regulation shall come into operation on the 1st January, 1956.

Exemptions

10.—(1) If the Chief Inspector is satisfied in respect of any foundry, or in respect of foundries of any specified class or description, that, owing to the special conditions, or special methods of work or otherwise, any requirement of Regulations 5, 6, 7 and 9 of these Regulations can be suspended or relaxed without danger to the health or safety of the persons employed, or that the application of any such requirement is for any reason impracticable or inappropriate, he may by certificate in writing (which he may at his discretion revoke at any time) exempt that foundry or foundries of that class or description from the application of that requirement subject to such conditions as may be specified in the certificate.

(2) Where any certificate is issued under this Regulation a legible copy thereof, showing the conditions (if any) subject to which it has been granted, shall be kept posted up in every foundry to which the exemption applies in a position where it may conveniently be read by the persons employed.

Dated this 1st day of October, 1953.

Walter Monckton,
Minister of Labour and National Service.

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 iron and steel foundries. The Regulations impose requirements for the purpose of promoting safety and cleanliness in work-rooms, and as to the provision and maintenance of protective equipment, bathing facilities and clothing accommodation ; and prescribe measures for the suppression of dust and fumes.

LONDON: PUBLISHED BY HER MAJESTY'S STATIONERY OFFICE

1955

(Reprint)

PRINTED IN GREAT BRITAIN

ISBN 0 11 100141 2