

Serial Number 1950/172

THE LEAD PROCESS REGULATIONS 1950

B. C. FREYBERG, Governor-General

ORDER IN COUNCIL

At the Government House at Wellington, this 4th day of
October, 1950

Present :

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL

PURSUANT to the Health Act, 1920, and the Factories Act, 1946, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, doth hereby make the following regulations.

REGULATIONS

1. (1) These regulations may be cited as the Lead Process Regulations 1950.

(2) These regulations shall come into force on the thirtieth day following the date of their notification in the *Gazette*.

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

“ Approved ” means approved by a Medical Officer or an Inspector of Health or of Factories or by an officer of the Department of Health holding written authority from the Director-General of Health under section 78 of the Factories Act, 1946 :

“ Lead product ” means any carbonate, oxide, nitrate, chromate, sulphate, acetate, or other salt of lead, or any lead material which, when treated in the manner specified in the First Schedule hereto, yields to such aqueous solution of hydrochloric acid as is specified in that schedule a quantity of soluble lead compound exceeding, when calculated as lead monoxide, 5 parts per cent of the dry weight of the portion taken for analysis :

“ Lead process ” means any of the following processes, that is to say :—

(a) The melting, casting, pasting, or burning of lead or of any material containing lead :

(b) The filing, buffing, or polishing of lead or any material containing lead :

(c) The repair or assembling or the breaking up of any appliance which contains any lead or lead product :

(d) Any process involving the manufacture of any lead product, where any of the said processes may give rise to fumes or dust from lead or lead compounds :

(e) The blending of motor-spirit with tetra-ethyl lead :

(f) Without prejudice to the preceding paragraphs, any process involving the mixing, crushing, sifting, or spraying of any lead product, or involving any movement or manipulation of lead products :

“Lead processing works” means any factory in which a lead process is carried on, and references to a lead processing room or place shall be construed accordingly :

“Pasting” means the process commonly known under this term in the manufacture of accumulators whereby a mixture containing any oxide of lead or other lead product is added to the plates :

“Medical Officer” means a Medical Officer of Health or a medical practitioner authorized by the Director-General of Health to exercise the powers and perform the duties of a Medical Officer under these regulations :

“Pathologist” means a medical practitioner expert in pathology.

3. These regulations shall apply to all lead processing works and to any lead process carried on therein :

Provided that—

(a) Regulations 24 and 25 hereof shall also apply in relation to any lead process wherever carried on :

(b) Nothing in this regulation shall be construed as restricting the operation of regulation 23 hereof.

REVOCATION AND SAVINGS

4. The regulations specified in the Second Schedule hereto are hereby revoked :

Provided that, without prejudice to the provisions of the Acts Interpretation Act, 1924, the revocation of any regulation by these regulations shall not affect any document made or any thing whatsoever done under any regulation so revoked, and every such document or thing shall continue in force and, so far as it could have been made or done under these regulations, shall have effect under the corresponding provision of these regulations.

STRUCTURE OF PREMISES

5. Every lead processing room or place shall be so situated and constructed as to prevent dust or fumes escaping therefrom in a manner dangerous to the health of any person in any other part of the lead-processing works.

6. (1) The ceiling of every lead processing room shall be not less than 9 ft. above the floor of the room.

(2) The walls and ceiling of the room shall be so constructed as to avoid as far as practicable the lodgment of dust thereon.

(3) In every lead processing room there shall be not less than 500 cubic feet of cubic space for each person working in the room ; and in calculating for the purposes of this regulation the amount of cubic space in any room no space more than 14 ft. from the floor shall be taken into account.

7. (1) The floor and walls of any room or place used for any of the following processes, that is to say :—

(a) The manufacture of lead oxide ; or

(b) The manufacture of paint in which a lead product is present in a dry form ; or

(c) The manufacture, repair, or breaking up of electric accumulators,—shall be faced with cement concrete or some other impermeable material, so finished as to offer a smooth, readily cleansable surface and, as far as practicable, shall be so maintained.

(2) The material of which the floor is constructed shall be carried up the walls to a height of not less than 3 in. in such manner that the angle between the floor and the walls shall be concavely rounded off.

8. Where any process of pasting or of manipulating dry oxide of lead is carried on in the same room as any other process (whether or not that other process is a lead process), the Medical Officer may, by notice in writing, require that the process of pasting or manipulating shall be isolated from that other process—

- (a) By the erection of a partition of an approved type extending from the floor to the ceiling in the case of a room or to a height of 9 ft. in any other case ; or
- (b) By such other method as the Medical Officer may, on representations made to him by the occupier, think fit to allow

EQUIPMENT

9. (1) While any lead process is being carried on in any room, no equipment or materials shall be allowed in the room unless they are necessary for carrying on the process or are necessarily associated with the process.

(2) If any equipment required for the carrying on of a lead process is fixed in position, it shall be so fitted as to leave any space beside, under, or behind it readily accessible for cleaning and inspection.

10. (1) Every work bench at which a lead process is carried on shall—

- (a) Have a smooth surface and be maintained in good repair ; and
 - (b) Be kept free from all other equipment or materials not required for, or produced in, the process.
- (2) Every work bench used for pasting shall—
- (a) Be covered throughout with sheet metal or other impervious material ;
 - (b) Be provided with raised edges ; and
 - (c) Be kept constantly moist while pasting is being carried out.

11. (1) The following processes shall not be carried on without the aid of an efficient exhaust draught—

- (a) The melting of lead or materials containing lead to a temperature exceeding 450 degrees Centigrade :
- (b) The manipulation of any dry lead product, unless carried on in an apparatus enclosed so as to prevent the escape of dust into any workroom :
- (c) The trimming, brushing, filing, or any other abrading or cutting of electric accumulator plates in such a way as to give rise to dust :
- (d) Lead burning, except the process known as tacking and except chemical burning if carried on as a process in the making of lead linings for cell cases under such conditions that the application of an efficient exhaust draft is not reasonably practicable :
- (e) Any other process in which dust or fumes escape or are liable to escape.

(2) Every exhaust draught provided in pursuance of the last preceding subclause shall be actuated by mechanical means and shall operate on the dust or fumes given off as near as may be to the point of origin, so as to prevent the dust or fumes from entering any room or place in which persons work :

Provided that in the case of pots containing molten lead the exhaust draught may be effected by natural means, but, if it is so effected, it shall not be deemed to be efficient unless it produces through the working opening over the pot a minimum inward air velocity measured at any point across the plane of the opening of at least 150 ft. per minute.

(3) The provisions of regulations 9 and 10 hereof shall not apply in relation to any process of melting lead in a single pot or to any room or place in which that is the only lead process carried on, when the pot is provided with an exhaust draft in accordance with the foregoing provisions of this regulation.

12. (1) A suitable receptacle with tightly fitting cover shall be provided in every room in which lead is melted, and dross removed from every pot containing molten lead shall be deposited therein; the receptacle shall be kept covered while in the room, except when the dross is being deposited therein.

(2) A suitable receptacle with tightly fitting cover shall be provided in every workroom in which lead waste material which may give rise to dust shall be deposited.

13. Any rack or shelf provided for the purpose of drying accumulator plates shall not be more than 2 ft. in width unless there is access thereto on both sides, in which case it shall not be more than 4 ft. in width.

CLEANING

14. (1) The fittings and furniture of every lead processing room shall be kept clean and the walls and ceilings thereof shall be kept clean and free from dust.

(2) The floor of every room in which pasting is carried on shall be—

- (a) Kept constantly moist while work is being done;
- (b) Provided with suitable and adequate drainage; and
- (c) Thoroughly washed daily by means of a hose pipe.

(3) All work benches at which any lead process is carried on in connection with the manufacture, assembly, or repair of electric accumulators shall be cleaned daily at a time when no other work is being done thereat, either by being damped and scraped, by being greased and scraped, or by means of a suction cleaning apparatus.

(4) Before any racks or shelves provided in an accumulator plate drying room are cleaned, they shall be thoroughly damped unless they are cleaned by means of a suction cleaning apparatus.

AMENITIES

15. (1) The washing facilities required to be provided in a lead processing works for persons engaged in any lead process by section 62 of the Factories Act, 1946, shall include—

- (a) For every five persons so engaged, either one wash hand basin or a section of trough not less than 2 ft. long;
- (b) For every seven persons so engaged, one shower bath;
- (c) A piped supply of hot and cold water to each basin, section of trough, or shower bath which shall be constantly maintained during working hours and for half an hour thereafter; and
- (d) Soap and nailbrushes, and either a clean towel weekly for every person so engaged or an adequate supply of paper towels or a hot air drier.

(2) Any trough provided in pursuance of this regulation shall have a smooth, impervious surface and also a waste pipe without a plug.

(3) For the purposes of this regulation, any residual fraction of five or seven shall be treated as a complete five or seven, as the case may be.

(4) The Medical Officer may, by written notice, require the provision of such additional washing facilities as may be specified in the notice for persons engaged in manipulating raw oxide of lead, in handling any other dry lead product, or in pasting.

(5) Nothing in this regulation shall be construed as requiring the washing facilities provided for persons engaged in a lead process to be kept separate from those provided for other persons working in the factory.

16. (1) At least one dressing room shall be provided and maintained conveniently accessible to, but separate from, any room in which a lead process is carried on.

(2) Two separate full length lockers of an approved pattern having doors and being ventilated top and bottom shall be provided in the dressing room for the clothing of each person engaged in the process, one locker being exclusively for his contaminated working clothes (including his protective clothing and respirator, if any) and the other for his other clothing and personal effects :

Provided that if a second dressing room is provided solely for depositing contaminated working clothes, only one locker need be provided in the first dressing room for each person so engaged.

17. (1) Subsections (4) and (5) of section 69 of the Factories Act, 1946 (which require the provision and furnishing of a suitable room in which persons employed in a factory may have their meals), shall apply in relation to every lead processing works notwithstanding that the number of persons employed therein does not exceed six.

(2) Every room provided in a lead processing works in pursuance of the said section 69 shall—

(a) Have a floor area of not less than 12 square feet for each person who is employed in the lead processing works (whether or not he is engaged in a lead process) and who has his meals in the room ;

(b) Be separate from any dressing room provided in pursuance of regulation 16 hereof ; and

(c) Be provided with adequate means for warming food and boiling water, with a sink and an adequate supply of hot and cold water for washing eating utensils, and with a cupboard for storing eating utensils.

18. Before each meal and before the end of each day's work ten minutes shall be allowed for washing to each person engaged in a lead process, and shall be treated for the purposes of the Factories Act, 1946, as if they were part of his working hours.

19. Drinking water provided in pursuance of section 61 of the Factories Act, 1946, in a lead processing works shall be delivered in upward jet fountains of an approved type.

PROTECTIVE CLOTHING

20. (1) Protective clothing shall be provided in accordance with the next following subclause for the use of persons engaged in a lead process, and shall be maintained in good condition.

(2) The clothing to be provided shall consist of the following articles, that is to say—

- (a) For each person so engaged, overalls of suitable length and material :
- (b) For each person who, owing to the nature of the process in which he is engaged, is liable to stand on a wet floor or have his clothing splashed, waterproof boots and an apron made of impermeable material and of suitable length :
- (c) If the Medical Officer, by notice in writing given to the occupier, so requires, for each person, a respirator of an approved type, together with a dust-proof box for storing it.

(3) The occupier shall make such arrangements as he thinks fit for the washing of overalls worn by persons engaged in a lead process, so, however, that they shall be washed not less than once a week.

DUTIES OF PERSONS WORKING IN A LEAD PROCESSING WORKS

21. (1) No person who is not actually working at a lead process shall without reasonable cause be in a lead processing room.

(2) No person whatsoever in a lead processing works shall unnecessarily handle lead products with his hands.

(3) Without prejudice to section 74 of the Factories Act, 1946, every person shall while actually working at a lead process wear the protective clothing (including the respirator, if any) provided for him in pursuance of these regulations, and when not wearing it shall deposit it in the locker or place provided for that purpose.

22. (1) No person shall have, prepare, or partake of food or drink, nor shall he smoke or chew tobacco or chewing-gum, in any lead processing room or place.

(2) Every person engaged in a lead process shall before eating a meal (other than light refreshment) or before leaving the lead processing works remove his protective clothing and wash his hands and forearms, and before taking any light refreshment or any drink shall wash his hands and forearms.

RESTRICTIONS ON DEALING WITH PAINT

23. No person shall import, store, transport, or sell paint containing any lead product otherwise than in a receptacle on which is conspicuously written in capital letters of not less than twenty-four points face measurement the words " This paint contains lead ".

MEDICAL EXAMINATION

24. (1) A Medical Officer or an officer of the Department of Health authorized to do so by the Director-General of Health may examine the blood of every person engaged in a lead process, whether or not that process is carried on in a factory, and the occupier or employer, if any, on being notified of the proposal, shall facilitate the examination.

(2) When a Medical Officer considers that any person engaged in a lead process is or may be absorbing lead in a quantity likely to injure his health, he may, by notice in writing, require that person to undergo a medical examination by a registered medical practitioner so specified and to provide a certificate from that practitioner as to his fitness for work and a report from a pathologist so specified as to the condition of his blood :

Provided that the Medical Officer may himself conduct the examination and issue a certificate.

(3) No person shall without reasonable cause fail to attend for examination in pursuance of this regulation or to comply with the requirements of any notice thereunder.

(4) No person shall continue to employ in a lead process any person who without reasonable cause, fails to attend for examination as aforesaid.

25. (1) If after examination a Medical Officer considers that a person engaged in a lead process (whether or not that process is carried on in a factory) is absorbing lead in a quantity likely to injure his health, he may by notice in writing given to that person and to his employer, if any :—

- (a) Require that person not to work overtime at a lead process :
- (b) If that person works in a lead processing works, require him with the concurrence of his employer, if any, to work in another part of the works :
- (c) Suspend him from working in a lead processing works or at a lead process.

(2) The Medical Officer shall by a like notice remove any requirement or suspension under the last preceding subclause when he is satisfied that the health of the person so warrants.

(3) No person shall work, or so employ another person that that other person works, in contravention of a notice given under this regulation.

REGISTER OF LEADWORKERS

26. The occupier of a lead processing works shall keep a register in an approved form containing the names of all persons for the time being engaged in a lead process and shall produce it on demand to a Medical Officer or Inspector of Health or of Factories.

SUPPLY AND EXHIBITION OF COPIES OF THESE REGULATIONS

27. (1) The occupier of a lead processing works shall supply a summary of these regulations to each person engaged in a lead process therein, and shall at all times cause a summary and a copy of the regulations to be exhibited and maintained in some conspicuous place at or near the entrance to every lead processing room or place and in such other parts of the works as an Inspector of Health or of Factories may direct.

(2) Every such summary shall be one prepared and provided by the Director-General of Health, and every such copy shall be one so provided.

OFFENCES

28. (1) Any person who contravenes or in any way fails to comply with regulation 23 of these regulations or so much of regulation 24 or 25 as relates to persons engaged in a lead process which is carried on elsewhere than in a factory shall be guilty of an offence under the Health Act, 1920, and shall be liable to a fine not exceeding £20.

(2) Save as provided by the last preceding subclause, any person who contravenes or in any way fails to comply with these regulations shall be guilty of an offence under the Factories Act, 1946.

SCHEDULES

FIRST SCHEDULE

THE method of testing lead products for soluble lead shall be as follows: A weighed quantity of the material which has been dried at 100 degrees Centigrade and thoroughly mixed shall be continuously shaken for one hour, at the common temperature, with a thousand times its weight of an aqueous solution of hydrochloric acid containing 0.25 per cent. by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weighed as lead sulphate.

SECOND SCHEDULE

REGULATIONS REVOKED

THE Lead Process Regulations 1925 (*Gazette*, 30th July, 1925, page 2166).
 Regulations amending the Lead Process Regulations 1925 (*Gazette*, 29th April, 1926, page 1100).
 The Accumulator (Lead Process) Regulations 1940 (Statutory Regulations 1940, Serial number 1940/212, page 706.)

T. J. SHERRARD,
 Clerk of the Executive Council.

EXPLANATORY NOTE

[*This note is not part of the regulations, but is intended to indicate their general effect.*]

These regulations contain provisions controlling the conduct of lead processes carried on in a factory or workshop and safeguarding the health and welfare of persons working at any lead process carried on in a factory or workshop.

The following regulations, however, are not confined to factories and workshops. Regulation 23 imposes a restriction on dealing with paint containing lead. Regulation 24 provides for the compulsory medical examination of all persons working at a lead process (including painting with lead paint) wherever they work, and under regulation 25 they may be required to limit their hours of work or abstain from working at a lead process.

Failure to comply with the regulations is punishable either under the Health Act, 1920, or the Factories Act, 1946.

Issued under the authority of the Regulations Act, 1936.

Date of notification in *Gazette*: 5th day of October, 1950.

These regulations are administered in the Department of Health.

(H.H. 50/11)