

MINISTRY OF HOME SECURITY
F. A. S. DEPARTMENT
G. O. A. R. C. S. J. I.
NO. A 620.1936.990.

STATUTORY RULES AND ORDERS,
1934, No. 990.

FACTORY AND WORKSHOP.
Dangerous and Unhealthy Industries.

THE CELLULOSE SOLUTIONS REGULATIONS, 1934, DATED SEPTEMBER, 13, 1934, MADE BY THE SECRETARY OF STATE UNDER SECTION 79 OF THE FACTORY AND WORKSHOP ACT, 1901 (1 EDW. 7. C. 22).

In pursuance of Section 79 of the Factory and Workshop Act, 1901, I hereby make the following Regulations and direct that they shall apply to all factories and workshops in which cellulose solutions as defined below are manufactured, used or stored.

Provided that nothing in these Regulations shall apply to the painting of any building, or to any process in the manufacture of artificial silk, or of incandescent gas mantles, or of explosives within the meaning of the Explosives Act, 1875^(a); and that Regulations Nos. 2, 3, 4 and 6 shall not apply to any *cellulose space* in which *cellulose solutions* or *inflammable liquids* are not manipulated or used for more than 15 minutes on any day;

Provided further that if the Chief Inspector of Factories is satisfied in respect of any factory or workshop or any class of process that, owing to the special conditions or special methods of work or otherwise, any of the requirements of these Regulations can be suspended or relaxed without danger to the persons employed therein, or that the application of these Regulations or any part thereof is for any reason impracticable, he may by certificate in writing (which he may at his discretion revoke) authorise such suspension or relaxation as may be indicated in the certificate for such period and on such conditions as he may think fit.

These Regulations may be cited as the Cellulose Solutions Regulations, 1934, and shall come into force on the 1st November, 1934.

DEFINITIONS. (b)

In these Regulations :—

Cellulose solution means any solution in *inflammable liquid* of cellulose acetate, of cellulose nitrate, of celluloid, or of

(a) 38-9 V. c. 17.

(b) Terms to which defined meanings are given are printed throughout in italics.

any other substance containing cellulose acetate, cellulose nitrate or any other cellulose compound, with or without the admixture of other substances.

Inflammable liquid means any liquid or mixture of liquids used or intended for use in connection with *cellulose solutions*, which when tested in the manner set forth in the Second Schedule to the Petroleum (Consolidation) Act, 1928,^(a) gives off an inflammable vapour at a temperature of less than ninety degrees Fahrenheit.

Cellulose cabinet means a cabinet, booth, or similar structure within which *cellulose solutions* or *inflammable liquids* are manipulated or used.

Cellulose space means a room or part of a room within which *cellulose solutions* or *inflammable liquids* are manipulated or used otherwise than in a *cellulose cabinet*.

Store-room means any room, chamber or similar structure in which *cellulose solutions* or *inflammable liquids* are stored.

Fire-resisting material means—

- (a) properly constructed brickwork not less than four and one half inches in thickness; or
- (b) concrete not less than three inches in thickness; or
- (c) efficiently jointed breeze slabbing not less than three inches in thickness; or
- (d) oak or teak not less than one and three quarter inches in finished thickness; or
- (e) glass not less than one quarter of an inch in thickness in the centre of which wire mesh is embedded; or
- (f) except for *store-rooms*, wood completely and securely covered on both sides with compressed asbestos not less than three sixteenths of an inch in thickness; or
- (g) iron or steel; or
- (h) any other material approved in writing by the Chief Inspector of Factories.

DUTIES.

It shall be the duty of the occupier to observe Part I of these Regulations. It shall be the duty of every person employed to observe Part II of these Regulations.

PART I.—DUTIES OF OCCUPIERS.

1. The occupier shall not undertake the manufacture, use or storage of *cellulose solutions* in any factory or workshop in which he did not undertake such manufacture use or storage as the case may

(a) 18-19 G. 5. c. 32.

he, before the commencement of these Regulations unless and until he has given to the District Inspector of Factories fourteen clear days' notice in writing of his intention to do so, or such shorter notice as the Inspector may agree to accept.

2. No person under sixteen years of age shall be employed in the manipulation or use of *cellulose solutions* or *inflammable liquids* containing more than fifteen per cent. by weight of benzene.

Provided that this Regulation shall not apply to any young person who is over fifteen years of age and so employed at the commencement of these Regulations.

3.—(a) Every *cellulose cabinet* shall be completely closed except in so far as openings are necessary for the purposes of the work or for the operation of the ventilating apparatus required by Regulation 4.

(b) Every *cellulose space* shall be separated by enclosure from every other part of the building or room except in so far as openings are necessary for the purposes of the work or for the operation of the ventilating apparatus required by Regulation 4.

(c) Every *cellulose cabinet* and all walls, partitions, doors, windows, floors, tops and ceilings, enclosing or forming part of the enclosure of any *cellulose space* shall be constructed of *fire-resisting material*, except as regards

(i) any *cellulose cabinet* or *cellulose space* which was in use as such before the commencement of these Regulations; and

(ii) any tops or ceilings of single storey buildings or of top floor rooms, or any outside walls, doors or windows, other than any of the aforesaid parts of a building in respect of which the Secretary of State specially directs that this exception shall not apply.

(d) All ducts, trunks or casings used in connection with the means of ventilation required by Regulation 4 shall be constructed of *fire-resisting material*.

4.—(a) Every *cellulose cabinet* or *cellulose space* shall be adequately ventilated by mechanical means so as to remove from the building any vapours of *cellulose solutions* or *inflammable liquids*, and to prevent their escape into any occupied room or work place. Such ventilation shall be kept in full operation for a period of at least five minutes after the cessation of any process in the manipulation or use of *cellulose solutions* or *inflammable liquids*.

(b) Where *cellulose solutions* are applied by spraying apparatus, arrangements shall, as far as practicable, be made so as to render it unnecessary for the person operating the spray to be in a position between the ventilating outlet and the article being sprayed.

5.—(a) No fire, flame, open light or other agency likely to ignite *cellulose solutions* or *inflammable liquids* or the vapours thereof shall be allowed within 20 feet of any *cellulose cabinet*, *cellulose space* or *store-room*, unless effectively separated therefrom by means of intervening *fire-resisting material*.

(b) All heating and electrical apparatus (including lamp fittings and resistances) liable to attain a temperature of 180° Fahrenheit, shall be so situated or so protected as to prevent the deposition thereon of any solid residues resulting from the manufacture, manipulation or use of *cellulose solutions*.

Nothing in this Regulation shall be deemed to relieve the occupier of any obligation imposed by the Regulations dated 23rd December, 1908,^(a) for the generation, transformation, distribution and use of electrical energy.

6. Adequate means of escape in case of fire, including a sufficient number of safe exits not fewer than two in number, shall be provided and maintained for every room in which a *cellulose cabinet* is situated and for every *cellulose space*, and such exits shall be so constructed as to open outwards.

7. Cotton waste, cleaning rags, or similar material liable to spontaneous combustion, shall, after use, be deposited without delay in metal containers with covers or removed without delay to a safe place.

8.—(a) Effective steps shall be taken to remove any solid residues resulting from the manufacture, manipulation or use of *cellulose solutions* from all *cellulose cabinets* and *cellulose spaces* and also from all ducts, trunks, casings or fans used in connection therewith, and such residues shall be deposited in a safe place.

(b) No such removal shall be effected by scraping with iron or steel implements.

9. An adequate supply of efficient fire extinguishing appliances in suitable positions, having regard to the structure and situation of the premises and the quantity and nature of the substances used, shall be provided for every room in which a *cellulose cabinet* is situated and for every *cellulose space*.

10. All stocks of *cellulose solutions* or *inflammable liquids* shall be kept in

(a) fixed storage tanks in safe positions, or

(b) metal drums, cans, or similar vessels situated in *store-rooms* which shall either be constructed of *fire-resisting material* or be in safe positions not less than 30 feet from any occupied building.

Provided that, unless and until the Secretary of State otherwise directs, the provisions of this Regulation and of Regulation 12 as to the position and construction of tanks and *store-rooms* shall not

(a) S.R. & O. 1908 (No. 1312) p. 340.

apply to any tank or *store-room* in respect of which a licence under the Petroleum (Consolidation) Act, 1928, (a) has been granted by a local authority.

11. The quantity of *cellulose solution* or *flammable liquid* in any workroom shall be kept as small as practicable to the work carried on, and in the case of workrooms where *cellulose solutions* or *flammable liquids* are used shall not exceed the estimated requirements for one day's work. Such *cellulose solution* or *flammable liquid* shall when not in actual use be kept in a metal cupboard or other receptacle at least as safe.

12. All drums, cans or similar vessels containing *cellulose solutions* or *flammable liquids* shall be kept securely closed when the contents are not in actual use, and shall, after the contents have been expended, be removed without delay to a safe place outside the building, or to a *store-room* constructed or situated in accordance with Regulation 10, and kept therein.

13. *Cellulose solutions* or *flammable liquids* containing more than fifteen per cent. by weight of benzene shall not be procured or stored otherwise than in receptacles legibly marked as containing benzene.

14. The occupier shall allow any Inspector of Factories to take at any time sufficient samples for analysis of any substances which the Inspector may have reason to believe to be *cellulose solutions* or *flammable liquids*. The Inspector shall, at the time any such sample is taken, divide the sample into two parts and seal and deliver to the occupier, in a suitable receptacle, one such part. The result of an analysis made under these Regulations shall not be published or disclosed to any person, except in so far as is necessary for the purpose of a prosecution for an offence under these Regulations.

PART II.—DUTIES OF PERSONS EMPLOYED.

15. No person shall smoke in any room in which a *cellulose cabinet* is situated or in any *cellulose space*, or in any *store-room*, or within 20 feet of any *store-room* or storage tank unless he is effectively separated from the *store-room* or tank by *fire-resisting material*. All persons employed shall observe the requirements of Regulation 5 (a).

16. Any person using cotton waste, cleaning rags or similar material shall comply with the requirements of Regulation 7.

17. Every person who is engaged in the manipulation or use of a *cellulose solution* or *flammable liquid* shall make full and proper

(a) 18-19 G. S. c. 32.

use of the ventilating and other appliances as provided for the purposes of these Regulations, shall report forthwith to the owner, occupier, manager, or other responsible person any defect in the same, and shall observe such directions as may be given to him with a view to carrying out these Regulations.

John Gilmour,
One of His Majesty's Principal
Secretaries of State.

Whitehall,
13th September, 1934.

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