

STANDARD OPERATING PROCEDURE For Electrolytic plating or oxidation of metal articles by use of an electrolyte containing acids, bases or salts of metals such as chromium, nickel, cadmium, zinc, copper, silver, gold etc.

1. Definitions.—For the purposes of this SOP: (a) “Electrolytic” means the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing acids, bases or salts of metal such as chromium, nickel, cadmium, zinc, copper, silver, gold, etc.; (b) “Bath”, means any vessel used for an electrolytic process or for any subsequent process; and (c) “Employed”, means employed in any process involving contact with liquid from a bath.

2. Exhaust draught.—An efficient exhaust draught shall be applied to every vessel in which an electrolytic process is carried on. Such draught shall be provided by mechanical means and shall operate on the vapour or spray given off in the process as near as may be at the point of origin. The exhaust draught appliances shall be so constructed, arranged and maintained as to prevent the vapour or spray entering into any room or place in which work is carried on.

3. Prohibition relating to women and young persons.—No woman, adolescent or child shall be employed or permitted to work at a bath.

4. Floor of work-rooms.—The floor of every work-room containing a bath shall be impervious to water. The floor shall be maintained in good and level condition and shall be washed down at least once a day.

5. Protective devices.—(1) The occupier shall provide and maintain in good and clean condition the following articles or protective devices for the use of all persons employed on any process at which they are liable to come in contact with liquid from a bath and such devices shall be worn by the person concerned: (a) waterproof aprons and bibs; and (b) for persons actually working at a bath, loose fitting rubber gloves and rubber boots or other water-proof footwear and chemical goggles. (2) The occupier shall provide and maintain for the use of all persons employed suitable accommodation for the storage and drying of protective devices.

6. Washing facilities.—(1) There shall be provided and maintained in good repairs for the use of all persons employed in electrolytic process and processes incidental to: (a) a wash place under cover, with either— (i) a trough with a smooth impervious surface fitted with a waste pipe, and of sufficient length to allow at least 60 cms. for every 5 persons employed at any one time and having a constant supply of water from taps or jets above the trough at intervals of not more than 60 cms. Or (ii) at least one washbasin for every five such persons employed at any one time fitted with a waste pipe and having a constant supply of water laid on. (b) a sufficient supply of clean towels renewed daily and soap or other suitable Page 4 of 102 cleaning material. (2) In addition to the facility in sub-paragraph (1), an approved type of emergency shower with eye fountain shall be provided and maintained in good working order. Whenever necessary, in order to ensure continuous water supply, storage tank of 1500 litres capacity shall be provided as a source of clean water for emergency use.

7. Cautionary placard.—A cautionary placard in the form specified below and printed in the language of the majority of the workers employed shall be affixed in a prominent place in the factory where it can be easily and conveniently read by the workers.

CAUTIONARY NOTICE Electrolytic Plating—

1. Chemicals handled in this plant are corrosive and poisonous.
2. Smoking, chewing tobacco, eating food or drinking, in this area is prohibited. No foodstuff or drink shall be brought in this area.
3. Some of these chemicals may be absorbed through the skin and may cause poisoning.
4. A good wash shall be taken before meals.
5. Protective devices supplied shall be used while working in this area.
6. Spillage of the chemicals on any part of the body or on the floor shall be immediately washed away with water.
7. All workers shall report for the prescribed medical tests regularly to protect their own health.

8. Medical facilities and records of examinations and tests.— The occupier of every factory in which electrolytic processes are carried on shall maintain a sufficient supply of suitable barrier cream, ointment and impermeable waterproof plaster in a separate box readily accessible to the workers and used solely for the purpose of keeping these substances. In case cyanides are used in the bath, the box shall also contain an emergency cyanide kit.