



FEDERAL SUBSIDIARY LEGISLATION

FACTORIES AND MACHINERY ACT 1967 [ACT 139] P.U. (A) 289/1986 FACTORIES AND MACHINERY (ASBESTOS PROCESS) REGULATIONS 1986

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Preamble

IN exercise of the powers conferred by section 56 (1) of the Factories and Machinery Act 1967 [Act 139], the Minister makes the following regulations:

PART I PRELIMINARY

1. Citation and commencement.

These Regulations may be cited as the **Factories and Machinery (Asbestos Process) Regulations 1986** and shall come into force on the 1st September 1986.

2. Interpretation.

In these Regulations, unless the context otherwise requires -

"approved" means approved in writing by the Chief Inspector;

"asbestos" means crocidolite, amosite, chrysotile, fibrous anthophyllite, tremolite or actinolite;

"asbestos dusts" means asbestos fibres or any particle containing loose asbestos fibres, dispersed during an asbestos process or any other process which generates asbestos fibres, or any particle containing loose asbestos fibres;

"asbestos fibres" means asbestos fibres of more than 5 micrometers in length and less than 3 micrometers in width and having a length to width ratio of not less than 3 to 1 when viewed in a phase contrast optical microscope at 400 to 500 magnification;

"asbestos material" means –

(a) asbestos, or any loose asbestos fibres, or any material containing any loose asbestos fibres that had been collected in a factory;

(b) asbestos dust or waste containing loose asbestos fibres that had been collected in a factory;

"asbestos process", in relation to a factory, means a manufacturing process involving the use, application, removing, mixing or other handling of asbestos material, but does not include –

(a) a process in connection with which asbestos dust cannot dispersed in such quantities or manner that the concentration of such dust in the breathing air of any employee may at any time exceed the permissible exposure limit; or

(b) the cleaning of the premises, plant, equipment, furniture or fittings of factory;

"asbestos processing area" means a workroom or part of a factory in which an asbestos process is carried out;

"breathing air", in relation to an employee, means air that is or may be breathed by that employee;

"competent person" means an employee or any other person appointed by an occupier and approved by the Chief Inspector to carry out any inspection, examination or test on exhaust equipment installed in a factory;

"dust collector" means any bag, bin or other receptacle for collecting dust, and that is part of or installed in connection with an exhaust equipment;

"employee" means a person employed in a factory whether by an occupier or by any other person;

"exhaust equipment" means equipment for removing dust by means of an exhaust draught produced by mechanical means;

"permissible exposure limit" means the maximum concentration of asbestos dust per milliliter of air to which an employee may be exposed;

"prescribed area" means an asbestos processing area in which it would not be practicable for an asbestos process to be carried on if exhaust equipment were provided;

"prescribed work" means the cleaning (including the emptying of dust collectors), inspection, examination, or testing of any processing area or any plant, equipment, furniture or fittings in such an area or used in any asbestos process, or the removal of asbestos dust;

"registered medical practitioner" means a medical practitioner registered under the Medical Act 1971[Act 50].

3. Application.

These Regulations shall apply to all factories in which any asbestos process is used, but shall not apply to any building operations or works of engineering construction.

4. Prohibition of use of crocidolite in manufacturing process.

Crocidolite shall not be used in any manufacturing process in any factory.

PART II PERMISSIBLE EXPOSURE LIMIT

5. Permissible exposure limit.

No employee shall be exposed to asbestos dust at concentration greater than one fibre per milliliter of air average over eight-hour period.

PART III
EXHAUST EQUIPMENT AND EMPLOYEE PROTECTION

6. Exhaust equipment to be provided.

(1) An asbestos process shall not be carried on in a factory unless, in connection with such process, an exhaust equipment is provided and such equipment conforms to, and is operated, inspected, examined and tested in accordance with these Regulations.

(2) The exhaust equipment provided in pursuance of subregulation (1)-

(a) shall be such and so operated as to comply with the requirement under regulation 5; and

(b) in connection with any machinery or plant, shall be operated at all times while such machinery or plant is in operation, and for such time thereafter as is necessary to comply with the requirement under regulation 5.

(3) The dust collector of the exhaust equipment shall -

(a) be installed in an enclosure or enclosures so that ingress into it or them of unauthorised persons is precluded, and the enclosure or enclosures shall be so designed as to prevent, so far as is practicable, the escape of asbestos dust into the air of any workplace or into the general environment;

(b) whenever a leakage occurs, be replaced or so repaired as to prevent such further leakage; and

(c) not be emptied, cleaned, agitated or reconditioned except by mechanical means or any other means which will comply with the requirement under regulation 5.

7. Inspection of exhaust equipment.

(1) The exhaust equipment provided in pursuance of regulation 6 shall be -

(a) inspected by a competent person at least once in every seven days, or at such more frequent intervals as an Inspector may, by notice in writing to the occupier, require; and

(b) thoroughly examined and tested by a competent person at intervals not longer than three months.

(2) The competent person making an inspection in pursuance of sub-regulation (1), shall forthwith make a report to the occupier of the fact of an matters disclosed by the inspection, examination or test; and every such report shall be kept in the factory for a period at least two years.

8. Protection of employees are not engaged in prescribed area or prescribed work.

Provisions shall be made in a factory by means of screens or partitions, or by other suitable means, to ensure so far as is practicable, that asbestos dust -

(a) in a prescribed area in the factory; or

(b) arising from prescribed work done in the factory,

does not enter the breathing air of any employee not engaged in such area or such work

9. Personal protective equipment.

(1) Where an employee is employed in a prescribed area, or in an area in which asbestos dust in a concentration exceeding the permissible exposure limit, arising from an asbestos process, cleaning, or any other process or work is or is liable to be present in his breathing air, or in any prescribed work, there shall be provided for his use-

(a) suitable protective clothing appropriate to the type of work in which he is employed and to the extent to which he is or is liable to be exposed to the inhalation of asbestos dust; and

(b) approved respiratory protective equipment.

(2) No protective clothing or respiratory protective equipment which has been used by a person shall be provided for the use of another person unless it has been thoroughly cleaned since last being used.

(3) No person shall be employed in any area or work referred to in sub-regulation (1) unless he has been fully instructed in the proper use of the protective clothing and the respiratory protective equipment provided for his use in pursuance of this regulation and the reasons for their use.

(4) All protective clothing and respiratory protective equipment provided in pursuance of these regulation shall-

(a) be kept clean; and

(b) be stored in a locker provided for such storage, and shall not be removed from such locker except for use, cleaning or other necessary purpose.

(5) The cleaning in pursuance of this regulation shall be carried out in the factory where the protective clothing and respiratory protective equipment have been in use.

10. Obligations of employee.

Every employee who is employed in a prescribed area, or in an area in which asbestos dust in a concentration exceeding the permissible exposure limit, arising from an asbestos process, cleaning, or any other process or work, is or is liable to be present in his breathing air, or in any prescribed work, shall-

(a) wear, and make full and proper use of the protective clothing and respiratory protective equipment provided for his use in pursuance of these Regulations; and

(b) on becoming aware of any defect in any exhaust equipment, protective clothing, respiratory protective equipment or any other equipment provided in the factory, immediately report the existence of such defect to the occupier.

PART IV HOUSEKEEPING

11. Cleaning.

(1) All-

(a) machinery, apparatus, work benches and other plant and equipment used in a factory for the purposes of an asbestos process;

(b) external surfaces of exhaust equipment and vacuum cleaning equipment provided in pursuance of these Regulations; and

(c) floors, inner walls, ceilings (or where there is no ceiling, the inside part of the roof) of, and fittings and furniture, in asbestos processing areas.

shall, in accordance with this regulation, be kept, so far as is practicable, in a clean state and free from accumulation of asbestos dust and waste that contains or may contain loose asbestos fibres.

(2) The cleaning in pursuance of sub-regulation (1) shall be done, in the case of-

(a) all those parts of a floor where asbestos dust and waste that contains or may contain loose asbestos fibres could reasonably be expected to accumulate, at least once in each day on which an asbestos process is carried on;

(b) the walls, ceiling and the inside parts of a roof, within twelve months, or other approved period, from the day on which these Regulations come into force, and thereafter at intervals of not more than twelve months; and

(c) workbenches, forthwith after the cessation of each shift or period of work in an asbestos process, or at such more frequent intervals as an Inspector may, by notice in writing the occupier, require.

(3) The cleaning in pursuance of sub-regulation (1) shall be done by means of a method which will prevent re-entry of asbestos dust in a concentration exceeding the permissible exposure limit to the breathing air of any employee.

PART V HANDLING AND DISPOSAL

12. Handling and disposal of asbestos material.

(1) No asbestos material shall be dispatched from or, so far as is practicable, received into a factory or warehouse, or be kept in a factory or warehouse, unless it is in a receptacle from which asbestos dust cannot escape or it is being transported within the factory in a totally enclosed system of conveyance.

(2) No asbestos material shall be disposed of as waste within a factory except in approved manner.

(3) All receptacles containing asbestos material in a factory shall be labeled as follows:

**"CAUTION-HANDLE WITH CARE
CONTAINS ASBESTOS MATERIAL
AVOID CREATING DUST".**

PART VI MEDICAL EXAMINATIONS

13. Medical examinations.

(1) The occupier shall provide or make available at his cost, medical examinations to any employee who in the course of his normal employment in the factory is present, whether continuously or not, in an asbestos processing area.

(2) The occupier shall arrange for each such employee to undergo a prescribed medical examination –

(a) within ninety days from the day on which these Regulations come into force, or within thirty days from the day the employee commences work, unless he has undergone a prescribed medical examination within the last two years; and

(b) thereafter at intervals not longer than two years.

14. Contents of medical examinations.

The prescribed medical examination in pursuance of regulation 13 is a medical examination by a registered medical practitioner which comprises or includes-

(a) a chest x- ray (posterior-anterior, 350 mm by 430 mm);

(b) the taking of a statement of the medical, occupational and smoking history of the person examined; and

(c) a clinical examination and pulmonary function tests, including the testing of forced vital capacity and forced expiratory volume at one second.

15. Medical examination report.

The registered medical practitioner, upon completion of the prescribed medical examination on an employee, shall furnish the occupier or the employee, if requested upon by the employee, with a report on the examination and all x-rays taken in the course of the examination.

16. Further examination or tests.

If the registered medical practitioner, after carrying out the prescribed or any other medical examination of an employee, is of the opinion that, for reason associated with the inhalation of asbestos dust by the employee, a further medical examination or any special diagnostic test are desirable, he shall notify the

occupier, and the occupier shall make arrangements for further examination or test as prescribed by the registered medical practitioner.

17. Removal from work.

If the registered medical practitioner, after carrying out the prescribed and further medical examination, and any other special diagnostic test on an employee, is of the opinion that an early stage of asbestos induced disease or diseases have occurred, he shall notify the occupier and the occupier shall remove the employee from work in an asbestos processing area.

18. Employee to comply.

Where in pursuance of this Part, arrangements are made for an employee to undergo a prescribed medical examination or any other medical examination or special diagnostic tests, the employee shall attend and undergo such examination or tests in accordance with those arrangements.

PART VII MONITORING FOR ASBESTOS DUST EXPOSURE

19. Personal monitoring.

(1) The occupier shall carry out personal monitoring, as specified by the Chief Inspector from time to time, in such manner necessary, to ascertain whether the provisions of these Regulations relating to the presence or concentration of asbestos dust in, or the entry of asbestos dust into breathing air of the employees are being complied with.

(2) The monitoring specified in sub-regulation (1) shall be carried out at intervals not longer than three months.

PART VIII CHANGE ROOMS, LOCKERS AND SHOWER FACILITIES

20. Change rooms, lockers and shower facilities.

The occupier shall provide for every employee for whom protective clothing and respiratory protective equipment are provided in pursuance of these Regulations-

- (a) a conveniently accessible change room, and in that room, for every such employee-
 - (i) a clothes locker for the storage of street clothes; and
 - (ii) a separate locker for the storage of protective clothing and respiratory protective equipment; and
- (b) a shower room which shall be attached to the change room

21. Employees to make full use of facilities.

Every employee for whom a change room, locker or lockers and a shower room have been provided in pursuance of regulation 20, shall make full and proper use of such rooms and locker or lockers, for changing and storage of street clothing, protective clothing and respiratory protective equipment and showering.

PART IX EMPLOYEE INFORMATION AND TRAINING

22. Training programme.

(1) The occupier shall institute a training programme for, and ensure the participation of all employees who are exposed to asbestos dust.

(2) The occupier shall ensure that during the training programme, each employee is informed of the following:

- (a) the provisions of these Regulations;
- (b) the specific nature of the operations which can result in exposure to asbestos dust;
- (c) the purpose, proper selection, fitting, use and limitations of respirators;
- (d) the purpose and a description of the medical surveillance programme, including information concerning the adverse health effects associated with exposure to asbestos dust; and
- (e) the engineering controls and work procedures associated with the employees' job assignments.

PART X RECORD KEEPING.

23. Medical reports.

The occupier shall keep in the factory in good condition, the reports and x-ray photographs furnished to him by the registered medical practitioner in pursuance of regulation 15, for the period of employment of the employee and at least twenty years thereafter.

24. Personal monitoring records.

The occupier shall maintain in good order records of personal monitoring of employees for the period of employment of the employee.

25. Availability of records.

The occupier shall make available upon request all records required to be maintained under these Regulations to the Chief Inspector for examination and copying.

26. Transfer of records.

(1) Whenever the occupier ceases to do business, the successor occupier shall receive and retain all records required to be maintained under these Regulations.

(2) Whenever the occupier ceases to do business, and there is no successor occupier to receive and retain the records required to be maintained under these Regulations, these records shall be transmitted to the Chief Inspector.

(3) At the expiration of the retention period of the records required to be maintained in pursuance of regulations 23 and 24, the occupier shall notify the Chief Inspector at least three months prior to the disposal of such records, and shall transmit those records to the Chief Inspector if requested within that period.

PART XI MISCELLANEOUS

27. Smoking.

(1) The occupier shall ensure that no smoking is done or allowed in an asbestos processing area.

(2) For the purpose of sub-regulation (1), the occupier shall post the following warning signs:

"NO SMOKING - HEALTH HAZARD AREA".

28. Penalty.

Any person who contravenes any provision of these Regulations shall be guilty of an offence and shall, on conviction, be liable to a fine not exceeding two thousand ringgit.

Made the 4th July 1986.
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DATO' LEE KIM SAI,
Minister of Labour