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राज्य सरकार तथा अन्य राज्य-प्राधिकारियों द्वारा जारी किये गये (सामान्य आदेशों, उप-विधियों आदि को सम्मिलित करते हुए) सामान्य कानूनी नियम।

**FACTORIES & BOILERS INSPECTION DEPARTMENT
NOTIFICATION**

Jaipur, February 13, 2015

G.S.R. 58 :- The following draft of rules further to amend the Rajasthan Factories Rules, 1951 which the State Government proposes to make in exercise of the powers conferred by section 112 of the Factories Act, 1948 (Central Act No. 63 of 1948), is hereby published as required by section 115 of the said Act for information of all persons likely to be affected thereby and notice is hereby given that the said draft rules would be taken into consideration after the expiry of a period of 45 days from the date of its publication in the Official Gazette.

Any objection or suggestion which may be received from any person in respect to the said draft rules before expiry of the period as specified above will be considered by the State Government. Such objections and suggestions should be addressed to the Chief Inspector of Factories & Boilers, Rajasthan, 6-C, Jhalana Institutional Area, Jaipur-302004.

DRAFT RULES

1. Short title and commencement. - (1) These rules may be called the Rajasthan Factories (Draft Amendment) Rules, 2015.

(2) They shall come into force on and from the date of their final publication in the Official Gazette.

2. Amendment of rule 2A. - In rule 2A of the Rajasthan Factories Rules, 1951, hereinafter referred to as the said rules,-

(i) the existing third proviso to sub-rule (1) shall be substituted by the following, namely:-

“Provided further that the ‘competent person’ recognized under this provision shall not be above the age of 62 years and

shall be physically fit for the purpose of carrying out the tests, examination and inspection."

(ii) the existing Schedule shall be substituted by the following, namely:-

"SCHEDULE

S. No.	Section or rule under which competency is recognized	Qualification required	Experience for the purpose	Facilities at his command
1	2	3	4	5
1.	Rules made under section 6 and section 112 – Certificate of stability for buildings	Degree in Civil or Structural Engineering or equivalent.	(i) A minimum of 10 years experience in the design of construction or testing or repairs of structures; (ii) Knowledge of non-destructive testing, various codes of practice that are current and the effect of the vibrations and natural forces on the stability of the buildings; and (iii) Ability to arrive at a reliable conclusion with regard to the safety of the structure or the building.	
2.	Rules made under section 21(2) – "Dangerous Machines"	Degree in Electrical or Mechanical or Textile Engineering or equivalent.	(i) A minimum of 7 years experience in- (a) design or operation or maintenance;	Gauges for measurement; instruments for measurement of speed and

1	2	3	4	5
			or (b) testing, examination and inspection of relevant machinery, their guards, safety devices and appliances.	any other equipment or device to determine the safety in the use of the dangerous machines.
			(ii) He shall – (a) be conversant with safety devices and their proper functioning; (b) be able to identify defects and any other cause leading to failure; and (c) have ability to arrive at a reliable conclusion with regard to the proper functioning of safety device and appliance and machine guard.	
3.	Section 28 – Lifts and Hoists	A degree in Electrical and or Mechanical Engineering or its equivalent.	(i) A minimum experience of 7 years in- (a) design or erection or maintenance; or (b) inspection and test procedures of lifts and hoists; (ii) He shall be –	Facilities for load testing, tensile testing, equipment/ gadget for measurement and any other equipment required for determining the safe working

1	2	3	4	5
			<p>(a) conversant with relevant codes of practices and test procedure that are current;</p> <p>(b) Conversant with other statutory requirements covering the safety of the Hoists and Lifts;</p> <p>(c) able to identify defects and arrive at a reliable conclusion with regard to the safety of Hoists and Lifts.</p>	conditions of Hoists and Lifts.
4.	Section 29 – Lifting Machinery and Lifting Tackles	Degree in Mechanical or Electrical or Metallurgical Engineering or its equivalent.	<p>(i) A minimum experience of 7 years in-</p> <p>(a) design or erection or maintenance; or</p> <p>(b) testing, examination and inspection of lifting machinery, chains, ropes and lifting tackles.</p> <p>(ii) He shall be –</p> <p>(a) conversant with the relevant codes of practices and</p>	Facilities for load testing, tensile testing, heat treatment, and equipment/gadget for measurement, gauges and such other equipment to determine the safe working conditions of the lifting machinery and tackle.

1	2	3	4	5
			test procedures that are current; (b) conversant with fracture mechanics and metallurgy of the material of construction; (c) conversant with heat treatment/ stress relieving techniques as applicable to stress bearing components and parts of lifting machinery and lifting tackles; (d) capable of identifying defects and arriving at a reliable conclusion with regard to the safety of lifting machinery, chains, ropes, and lifting tackles.	
5.	Section 31 – 'Pressure Plant'	Degree in Chemical or Electrical or Metallurgical or Mechanical Engineering or its equivalent.	(i) A minimum experience of 10 years in- (a) design or erection or maintenance, or (b) testing, examination and inspection of pressure plants. (ii) He shall be- (a) conversant with the relevant codes of practices and.	Facilities for carrying out hydraulic test, non-destructive test, gauges and equipment/ gadgets for measurement and any other equipment or gauges to determine the safety in

1	2	3	4	5
			test procedures relating to pressure vessels; (b) conversant with statutory requirements concerning the safety of unfired pressure vessels and equipments operating under pressure; (c) conversant with non-destructive testing techniques as are applicable to pressure vessels; (d) able to identify defects and arrive at a reliable conclusion with regard to the safety of pressure plants	the use of pressure vessels.
6.	(i) Section 36—Precautions against dangerous fumes. (ii) Rule made under sections 41 and 112 concerning ship-building and ship repairs.	Master's degree in Chemistry, or a degree in Chemical Engineering.	(i) A minimum experience of 7 years in collection and analysis of environmental samples and calibration of monitoring equipment; (ii) He shall – (a) be conversant with the hazardous properties of chemicals and their permissible	Meters, instruments and devices duly calibrated and certified for carrying out the tests and certification of safety in working in confined spaces.

1	2	3	4	5
			<p>limit values;</p> <p>(b) be conversant with the current techniques of sampling and analysis of the environmental contaminants; and</p> <p>(c) be able to arrive at a reliable conclusion as regards the safety in respect of entering and carrying out hot work.</p>	
7.	<p>Ventilation systems as required under various Schedules framed under Section 87, such as Schedules on –</p> <p>(i) Grinding or glazing of metals and processes incidental thereto,</p> <p>(ii) Cleaning or smoothing, roughening, etc. of articles, by a jet of sand, metal shot, or grit, of other abrasive propelled by a blast of compressed air or steam.</p> <p>(iii) Handling</p>	<p>Degree in Mechanical or Electrical Engineering or its equivalent.</p>	<p>(i) A minimum experience of 7 years in the design, fabrication, installation, testing of ventilation system and systems used for extraction and collection of dusts, fumes and vapours and other ancillary equipment.</p> <p>(ii) He shall be conversant with relevant codes of practice and test procedures that are current in respect of</p>	<p>Facilities for testing the ventilation system, instruments and gauges for testing the effectiveness of the extraction systems for dusts, vapours and fumes, and any other equipment needed for determining the efficiency and adequacy of these systems. He shall have the assistance of</p>

1	2	3	4	5
	and processing of Asbestos, Manufacture of any Article or Substance of Asbestos and any other Processes of Manufacture or otherwise in which Asbestos is used in any form (iv) Manufacture of Rayon by viscose process, (v) Foundry operations.		ventilation and a extraction system for fumes, and shall be able to arrive at a reliable conclusion with regard to effectiveness of the system.	a suitable qualified technical person who can come to a reasonable conclusion as to the adequacy of the system.
8.	Rule 65 C – Testing and examination of Safety Belts	Degree in Mechanical or Electrical Engineering or its equivalent.	A minimum experience of seven years in testing, examination and inspection of safety belts and shall be conversant with relevant standards of Industrial Safety Belts and harnesses and their specifications.	Gauges for measurement and instruments for magnifying.
9.	Rule 65 AA – Testing and examination of Ovens and Driers	Degree in Mechanical or Electrical Engineering or its equivalent.	(i) A minimum experience of seven years in design or maintenance, or operation or testing and examination of ovens and driers.	(i) Meters, instruments and devices duly calibrated and certified for

1	2	3	4	5
			<p>(ii) Knowledge of relevant codes of practices and test procedures that are current.</p> <p>(iii) Conversant with statutory requirements regarding the safety of ovens and driers.</p> <p>(iv) Conversant with safety devices and their proper functioning to ensure the safety of ovens and driers.</p> <p>(v) Be able to identify defects and other causes leading to failure of ovens and driers.</p> <p>(vi) Ability to arrive at a reliable conclusion as to the safety of ovens and driers.</p>	<p>carrying out the tests and certification of safety.</p> <p>(ii) Facilities for carrying out non-destructive test.</p>
10.	Rule 65 LL – (i) Sub-rule 16 Testing of heater coil	Degree in Mechanical or Electrical Engineering or its equivalent.	A minimum experience of seven years in design or operation or maintenance or testing and examination of thermic fluid heater.	Facilities for pressure testing.

1	2	3	4	5
	(ii) Sub-rule 18 Testing of Thermic fluid	Master's Degree in Chemistry or a Bachelor's degree in Chemical Engineering.	A minimum experience of seven years in testing of thermic fluids.	Laboratory facilities to test acidity, suspended matter, ash contents, viscosity and flash point of thermic fluid.
11.	Rule 100 Schedule -X Part II, Para 7, Examination of instruments and safety devices.	Degree in Chemical Engineering or Technology or Instrumentatio n Engineering or Technology or Mechanical Engineering.	(i) A minimum experience of seven years in - (a) operation or maintenance; or (b) testing, examination and inspection of the process instruments and safety devices. (ii) Must be thoroughly conversant with the relevant codes of practices and test procedures that are current, and be able to arrive at a reliable conclusion as regards the reliability and proper functioning of the process	Meters, instruments, devices and other appropriate facilities duly calibrated and certified for carrying out the tests of process instruments and safety devices.

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1	2	3	4	5
			instruments and safety devices.	
12	Rule 100 Schedule -X Part II, Para 15, Testing, Examination and repair of plants and equipments.	Degree in Chemical Engineering or Technology or Instrumentation Engineering or Technology or Mechanical Engineering	<p>(i) A minimum experience of seven years in -</p> <p>(a) the operation or maintenance of process plant in a chemical industry;</p> <p>(b) testing, examination and inspection of plant equipment and machinery in a chemical process industry.</p> <p>(ii) He shall-</p> <p>(a) be thoroughly conversant with the process of hazards involved;</p> <p>(b) be able to identify the defects and other causes which may lead to failure of the plant equipment and machinery in chemical process</p>	Non-destructive testing equipment such as ultrasonic thickness gauging instrument and flaw detector hydraulic pump portable toxic and flammable gas detectors (Multi gas detector)

1	2	3	4	5
			industry; (c) have ability to arrive at a reliable conclusion with regard to the safety and integrity of the plant equipment and machinery.	
13	Rule 100 Schedule -X Part II, Para 18, Entry into or work in confined space.	Master's Degree in Chemistry or a Bachelor's degree in Chemical Engineering	(i) A minimum experience of seven years in collection and analysis of environmental samples and calibration of monitoring equipments. (ii) He shall - (a) be conversant with the hazardous properties of chemicals and their permissible limit value; (b) be conversant with the current techniques of sampling and analysis of contaminants; and (c) be able to arrive at a reliable conclusion as regards the safety in respect of entering the confined space and carrying out hot work or	Portable multi gas detectors as applicable to the Chemical gases or fumes in the confined space, oxygen level meter.

1	2	3	4	5
			other maintenance work.	
14	Rule 100 Schedule -X Part V, Para 5, Testing and Examination of plant and equipment made from reinforced plastics.	Bachelors degree in Plastic Technology or Chemical Engineering or Technology or Mechanical Engineering or Technology or Electrical Engineering	(i) A minimum experience of seven years in (a) operation or maintenanc e of process plant in a chemical industry; or (b) testing, examination and inspection of plant and equipment made from reinforced plastics in a chemical industry. (ii) He shall - be thoroughly knowledgea ble about the Indian Standards or any other National Standards as regards the plant and equipment made of reinforced plastics. be fully conversant with the chemical compatibility of reinforced plastics;	Non- destructive testing equipment such as ultrasonic thickness gauging equipment, flaw detector and hydraulic pump.

1	2	3	4	5
			be able to identify the defects and other causes which may lead to failure of the plant and equipment made of reinforced plastics.	
			have ability to arrive at a reliable conclusion with regard to the safety and integrity of the plant and equipment made of reinforced plastics.	

3. Amendment of rule 65(I).- In clause (a) of sub-rule (12) of rule 65(I) of the said rules, the existing expression "as prescribed by the Chief Inspector" shall be deleted.

4. Amendment of rule 100. - In rule 100 of the said rules,-

- (i) the existing clause 16 of sub-rule (1) shall be substituted by following, namely,-
"16. Manipulation of stone or any other material containing free silica."
- (ii) the existing Schedule XV shall be substituted by the following, namely:-

"SCHEDULE XV

Handling and Processing of Asbestos, Manufacture of any Article or Substance of Asbestos and any other Processes of manufacture or otherwise in which Asbestos is used in any Form

1. Application.-

(1) This schedule shall apply to all manufacturing processes as defined under Section 2(k) of the Act, carried on in a factory involving exposure of workers to asbestos and/or product containing Asbestos.

(2) The Government may, at any time, for the purpose of giving effect to any scientific proof obtained from specialised institutions or experts in the field, notification in the Office Gazette, make suitable changes in the said schedule:

(3) The provisions of this schedule shall apply to all workers exposed to asbestos in the factory and it shall be the responsibility of the occupier of the factory to comply with the provisions of the schedule in respect of the workers.

(4) (a) The occupier of the factory wherein asbestos or substances containing asbestos are in use, shall prepare work procedures and practices, in the light of scientific research and technological progress for approval by the Chief inspector and shall follow only such approved procedures.

(b) Notwithstanding anything mentioned in sub-paragraph (1) use of asbestos is prohibited in the manufacturing process as may be notified by the Government in this behalf.

(c) (i) spraying of all forms of asbestos is prohibited in a factory.

(ii) The prohibition in respect of spraying of asbestos referred to in sub-para (i) may be exempted by the Chief Inspector if the Occupier represents that such spraying is inevitable certain purposes provided adequate measures for ensuring the safety and health of workers are undertaken by the occupier to the satisfaction of the Chief Inspector.

2. Definition.-

For the purpose of this Schedule -

(a) "asbestos" means any fibrous silicate mineral and any admixture containing actionlite, amosite, anthophyllite, chrysotile, crocidolite, tremolite or any mixture thereof, whether crude, crushed or opened;

(b) "asbestos textiles" means yarn or clothes composed of asbestos or asbestos mixed with any other materials;

(c) "approved" means approved for the time being in writing by the Chief Inspector;

- (d) "breathing apparatus" means a helmet or face piece with necessary connection by means of which a person using it breathes air free from dust, or any other approved apparatus;
- (e) "efficient exhaust draught" means a localised ventilation by mechanical means for the removal of dust so as to prevent dust from escaping into air of any place in which work is carried on. No draught shall be deemed to be efficient which fails to control dust produced at the point where such dust originates;
- (f) "preparing" means crushing, disintegrating, and any other processes in or incidental to the opening of asbestos;
- (g) "protective clothing" means overalls and head covering, which (in either case) will when worn exclude asbestos dust;
- (h) "asbestos dust" means airborne particles of asbestos or settled particles of asbestos which are liable to become airborne in the factory;
- (i) "airborne asbestos dust" means, for the purposes of measurement, dust particles measured by gravimetric assessment or other equivalent method;
- (j) "repairable asbestos fibres" means asbestos fibres having diameter of less than 3 micrometer and a length to diameter ratio greater than 3:1;
- (k) "exposure to asbestos" means exposure to airborne repairable asbestos fibres or asbestos dust; whether originating from asbestos or from minerals, materials or products containing asbestos in the factory.

2-A- Demolition of plants or structures -

No person shall carry out any demolition of plants or structures containing friable asbestos insulation material and removal of asbestos from building or structures in which asbestos is liable to become air-borne, unless he is recognized and duly empowered by the Chief Inspector of Factories as qualified to carry out such work in accordance with the provisions of this Schedule.

3. Tools and equipment.-

Any tools or equipment used in processes to which this schedule applies shall be such that they do not create asbestos dust above the permissible limit or are equipped with efficient exhaust draught.

4. Exhaust draught.-

- (1) An effective exhaust draught shall be provided and maintained to control dust from the following processes and machines as per the relevant National Standards-

- (a) manufacture and conveying machinery namely -
- (i) preparing, grinding, or dry mixing machines;
 - (ii) carding, card waste and ring spinning machines, and looms;
 - (iii) machines or other plant fed with asbestos;
 - (iv) machines used for the sawing, grinding, turning, drilling, abrading or polishing; in the dry state, of articles composed wholly or partly of asbestos;
 - (b) cleaning, and grinding of the cylinders or other parts of a carding machine;
 - (c) chambers, hoppers or other structures into which loose asbestos is delivered or passes;
 - (d) work-benches for asbestos waste sorting or for other manipulation or asbestos by hand;
 - (e) workplaces at which the filling or emptying of sacks, skips or other portable containers, weighing or other process incidental thereto which is effected by hand, is carried on;
 - (f) sack cleaning machines;
 - (g) mixing and blending of asbestos by hand; and
 - (h) any other process in which dust is given off into the work environment.

(2) Exhaust ventilation equipment provided in accordance with sub - paragraph

(1) shall, while any work of maintenance or repair to the machinery, apparatus or other plant or equipment in connection with which it is provided is being carried on, be kept in use so as to produce an exhaust draught which prevents the entry of asbestos dust into the air of any work place.

(3) Arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air of any workroom.

(4) The asbestos bearing dust removed from any workroom by the exhaust system shall be collected in suitable receptacles or filter bags which shall be isolated from all work areas.

5. Testing and examination of ventilating systems.-

- (1) All ventilating systems used for the purpose of extracting or suppressing dust as required by this schedule shall be as per the relevant Indian Standards,

examined and inspected once every week by a responsible person. It shall be thoroughly examined and tested by a competent person once in every period of 12 months. Any defects found by such examinations or test shall be rectified forthwith.

- (2) A register containing particulars of such examination and tests and the state of the plant and the repairs or alternations (if any) found to be necessary shall be kept and shall be available for inspection by an Inspector.

6. Segregation in case of certain process.-

Mixing or blending of asbestos by the hand, or making or repairing of insulating mattresses composed wholly or partly of asbestos shall not be carried on in any room in which any other work is done.

7. Storage and distribution of loose asbestos.-

All loose asbestos shall, while not in use, be kept in suitable closed receptacles which prevent the escape of asbestos dust there from. Such asbestos shall not be distributed within a factory except in closed receptacles or in a totally enclosed system of conveyance.

8. Asbestos sacks. -

- (1) All sacks used as receptacles for the purpose of transport of asbestos within the factory shall be constructed of impermeable materials and shall be kept in good repair.

- (2) A sack which has contained asbestos shall not be cleaned by hand beating but by a machine, complying with paragraph 4.

- (3) Asbestos sacks or receptacles which contain asbestos shall be disposed off in a safe manner.

9. Maintenance of floors and workplaces.-

- (1) In every room in which any of the requirements of this schedule apply -

(a) the floors, work-benches, machinery and plant shall be kept in a clean state and free from asbestos debris and suitable arrangements shall be made for the storage of asbestos not immediately required for use; and

(b) the floors shall be kept free from any materials, plant or other articles not immediately required for the work carried on in the room, which would obstruct the proper cleaning of the floor.

(2) The cleaning as mentioned in sub-rule (1) shall so far as is practicable, as carried out by means of vacuum cleaning equipment so designed and constructed and so used that asbestos dust neither escapes nor is discharged into the air of any work place.

(3) When the cleaning is done by any method other than that mentioned in sub-paragraph (2), the persons doing cleaning work and any other person employed in that room shall be provided with respiratory protective equipment and protective clothing.

(4) The vacuum cleaning equipment used in accordance with provisions of sub-paragraph (2), shall be properly maintained and after each cleaning operation, its surfaces kept in a clean state and free from asbestos waste and dust.

(5) Asbestos waste shall not be permitted to remain on the floors or other surfaces at the work place at the end of the working shift and shall be transferred without delay to suitable receptacles. Any spillage of asbestos waste occurring during the course of the work at any time shall be removed and transferred to the receptacles maintained for the purpose without delay.

9 (A) The occupier shall replace asbestos or of certain types of asbestos or products containing asbestos by other materials or products or shall use alternative technology, scientifically evaluated as harmless or less harmful, wherever this is possible.

(B). The occupier should take all the measures to prevent or control the release of asbestos in to the air and to ensure that the exposure limits or other exposure criteria are complied with and also reduce exposure to as low as a level as is reasonably practicable.

10. Breathing apparatus and personal protective equipment and clothing:

(1) The occupier of every factory to which this schedule applies shall provide to workers personnel protective equipments such as hand gloves, shoes, helmets, goggles, earplug, aprons, safety belt, overall suit, etc. as per the relevant National or International Standards as may be required.

The approved breathing apparatus and appropriate work clothing as per the relevant National or international standards in consultation with the workers representatives

and maintained in good conditions for use of every person employed -

- (a) in chambers containing loose asbestos;
- (b) in cleaning, dust settling or filtering chambers of apparatus;
- (c) in cleaning the cylinders, including the defer cylinders, or other parts of a carding machine by means of hand-stickles;
- (d) in filling, beating, or levelling in the manufacture or repair of insulating mattresses; and
- (e) in any other operation or circumstances in which it is impracticable to adopt technical means to control asbestos dust in the work environment within the permissible limit.

(2) Suitable accommodation in conveniently accessible position shall be provided for the use of persons when putting on or taking off breathing apparatus and protective clothing provided in accordance with this rule and for the storage of such apparatus and clothing when not in use.

(3) All breathing apparatus and protective clothing not in use shall be stored in the accommodation provided in accordance with sub-rule (2) above.

(4) All protective clothing in use shall be de-dusted under an efficient exhaust draught or by vacuum cleaning and shall be washed at suitable intervals. The cleaning schedule and procedure should be such as to ensure the efficiency in protective the wearer.

(5) All breathing apparatus shall be cleaned and disinfected at suitable intervals and thoroughly inspected once every month by a responsible person.

(6) A record of the cleaning and maintenance and of the condition of the breathing apparatus shall be maintained in a register provided for that purpose which shall be readily available for inspection by an Inspector.

(7) No person shall be employed to perform any work specified in sub-paragraph (1) for which breathing apparatus is necessary to be provided under that sub-paragraph unless he has been fully instructed in the proper use of that equipment.

(8) No breathing apparatus provided in pursuance of sub-paragraph (1) which has been worn by a person shall be worn by another person unless it has been thoroughly cleaned and disinfected since last being worn and the person has been fully instructed in the proper use of that equipment.

(9) No worker shall take home any work clothing or special protective clothing or personal protective equipment provided to him for protection against exposure to asbestos.

11. Separate accommodation for personal clothing.-

A separate accommodation shall be provided in a conveniently accessible position for all persons employed in operations to which this schedule applies for storing of personal clothing. This should be separated from the accommodation provided under sub-paragraph (2) of paragraph 10 to prevent contamination of personal clothing.

12. Washing and bathing facilities.-

(1) There shall be provided and maintained in a clean state and in good repair for the use of all workers employed in the processes covered by the schedule, adequate washing and bathing places having a constant supply of water under cover at the rate of one such place for every 15 persons employed.

(2) The washing places shall have standpipes placed at intervals of not less than one metre.

(3) Not less than one half of the total number of washing places shall be provided with bathrooms.

(4) Sufficient supply of clean towels made of suitable material shall be provided:

Provided that such towels shall be supplied individually for each worker if so ordered by the Inspector.

(5) Sufficient supply of soap and nail brushes shall be provided.

13. Mess Room.-

(1) There shall be provided and maintained for the use of all workers employed in the factory covered by this schedule, remaining on the premises during the rest intervals, a suitable mess room which shall be furnished with:-

(a) sufficient tables and benches with back rest, and

(b) adequate means for warming food.

14. Prohibition of employment of young persons.-

No young person shall be employed in any of the process covered by this schedule.

15. Prohibition relating to smoking.-

No person shall smoke in any area where processes covered by this schedule are carried on. A notice in the language understood by majority of the workers shall be posted in the plant prohibiting smoking at such areas.

16. Pictorial Cautionary notices.-

Cautionary notices in the form specified in appendix and printed in the language easily read and understood by the majority of the workers shall be displayed in prominent places in the workrooms where asbestos or substances containing asbestos are manufactured, handled or used.

17. Air monitoring.-

(1). To ensure the effectiveness of control measures in continuous or repetitive processes, the monitoring of asbestos fibres in air as well as personal monitoring of workers shall be carried out at least once in every shift and the result so obtained shall be entered in register and

(a) There should be no substantial change in workplace conditions.

(b) The results of the two (2) preceding measurements have not exceeded half the relevant control limit.

(c) All factories should adopt membrane filter test as per BIS standard without fail.

18. Medical control measures -

(1) The occupier of every factory in which a worker employed in the processes specified in Sub Rule 1, shall ensure that every worker employed be examined by a Medical Inspector of Factories/ Certifying Surgeon within 15 days of his first employment. Such medical examination shall include sputum examination for asbestos bodies, pulmonary function test and chest X-ray -Posterior Anterior (PA) view to be compared with standard ILO Radiographs or Pneumoconiosis. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.

(2) Every worker employed in the processes shall be re-examined by a Certifying Surgeon at least once in

every twelve months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include all the tests as specified in sub-paragraph (1) except chest X-ray which shall be read by a radiologist specialised / trained in the field of reading ILO Radiographs or Pneumoconiosis and the chest x-ray which shall be carried out at least once in 3 years.

(3) Every worker employed in any of the aforesaid processes on the date on which the schedule comes into force shall be radiologically examined by the qualified Radiologist at the cost of the occupier using a standard size x-ray plates and the power of the x-ray machine shall be more than 300 milliampere (mA). The report of such x-ray shall be submitted to the Medical Inspector of Factories / Certifying Surgeon/ Chief Inspector within three months of the said date.

(4) If at any time the Medical Inspector of Factories / Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker he shall make a record of his findings in the said Certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he fully is incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.

(5) No person who has been found unfit to work as said in sub-paragraph (4) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.

(6) If a worker already in employment and declared unfit by the Medical Inspector of Factories / Certifying Surgeon shall not be allowed to work on any of the processes specified in sub-rule (1), unless he has been examined again along with standard size chest x-ray

plate from a qualified Radiologist, at the cost of the occupier and has been certified to be fit to work on the said processes again.

(7)

For the purpose of medical supervision by the medical practitioner/ certifying surgeon so appointed by the occupier shall be provided for his exclusive use a room in the factory premises which shall be properly cleaned, adequately lighted ventilated and furnished with a screen, a table with office stationary, chairs and other facilities and other instruments including x-ray arrangements for such examinations and such other equipments as may be prescribed by the Chief Inspector from time to time. The medical practitioner so appointed shall perform the following duties

- (a) maintain health register;
- (b) undertake medical supervision of persons employed in the factory;
- (c) look after health, education and rehabilitation of sick, injured or affected workers;
- (d) carry out inspection of work rooms where dangerous operations are carried out and advise the management of the measures to be adopted for the protection of health of the workers employed therein.

(8) The Health Records of the workers exposed to asbestos, shall be kept up to a minimum period of 40 years from the beginning of the employment or 15 years after retirement or cessation of the employment, whichever is later and shall be accessible to workers concerned or their representatives.

(9) The record of Medical Examinations and appropriate tests carried out by the said medical practitioner, a certificate of fitness and health shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector and produced on demand.

19. Exemptions.-

(1) If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or infrequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may at his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

(2) The Chief Inspector may permit temporary derogation, through a notification in an official gazette, from the measures prescribed in this Schedule under conditions and within limits of time determined after consultation with the representative organizations of employers and workers concerned."

Appendix

PICTORIAL CAUTIONARY NOTICE

1. Asbestos/ asbestos dust which is used, handled or manipulated in this is very hazardous to health.
2. Prolonged exposure to asbestos dust may lead to serious diseases like lung fibrosis (Asbestosis) and lung cancer.
3. Entry is prohibited without protective equipment.
4. Wear the protective Equipments to safeguard your health.
5. No food stuffs or drinks shall be brought into this area.
6. Smoking, eating food or drinking and chewing tobacco in this area is prohibited.
7. Scrupulous cleanliness shall be maintained in this area.
8. Dry sweeping in this area is prohibited. Any Spillage of asbestos shall be cleaned by vacuum cleaning only.
9. A sack or container contaminated with asbestos shall not be cleaned by hand and is to be disposed off by an appropriate method

10. All protective equipments and clothing shall be re-dusted by vacuum cleaning and stored in an appropriate place provided for the purpose
11. Entry of unauthorized persons or authorized persons without proper protective equipments is prohibited.
12. Report for the prescribed medical examinations and tests regularly to protect your own health.
13. Report to your doctor immediately if you suffer from persistent breathlessness, chest tightness or cough.

(iii) the existing Schedule XVI shall be substituted by the following, namely:-

“SCHEDULE XVI

Manipulation of stone, or any other material containing free silica

The following Manufacturing Proces shall be considered as Manipulation of Stone or other material containing free Silica:

1. Stone Crushers
2. Gem and Jewellery
3. Slate Pencil Making
4. Agate Industry
5. Cement Industry
6. Pottery
7. Glass Manufacturing

1. Application - This schedule shall apply to all factories or parts of factories in which the above said manufacturing activity containing free silica is carried on.

2. Definitions- For the purpose of this Schedule -

- (a) “manipulation” means crushing, breaking, chipping, dressing, grinding, sieving, mixing, grading or handling of stone or any other material containing free silica or any other operation involving such stone or material;
- (b) “stone or any other material containing free silica” means a stone or any other solid material

containing not less than 5% by weight of free silica.

3. Preventative Control Measures

No manipulation shall be carried out in a factory or part of a factory unless the following preventive control measures are adopted, namely -

3 (1) Engineering Control Measures

(1) Wet Methods:

- (a) Airborne Silica Dust should be minimized or suppressed by applying water to the process or clean up;
- (b) Water should be provided to drilling or sawing of concrete or masonry;

(2) Ventilation:

- (a) An effective Local exhaust systems should be provided and maintained to control/ remove silica dust from industrial processes.
- (b) Dilution/ventilation may be used to reduce free silica dust concentration to below the permissible limits in large areas.
- (c) Dust collectors /HEPA filter should be set up so that dust shall be removed from the source and all transfer points to prevent contaminating work areas.
- (d) Ventilation systems should be kept in good working conditions.

(3) Isolation:

- (a) Containment methods should be used while carrying out sand blasting.
- (b) Cabins of vehicles or machinery cutting & drilling that might contain free silica should be enclosed and sealed.

(4) Dust Control:

- (a) Vacuum System with High Efficiency Particle Air (HEPA) filter shall be used to remove dust from work areas and at all transfer points.
- (b) The belt conveyors transferring crushed material shall be totally enclosed throughout its length.

Provided that such control measures as above said are not necessary if the process or operation itself is such that the level of

dust created and prevailing does not exceed the permissible limit of Exposure specified in the Second Schedule of the Act.

3 (II). Medical Control Measures.

- (1) The occupier of every factory in which a worker employed in the processes specified in Sub Rule 1, shall ensure that every worker employed be examined by a Medical Inspector of Factories/ Certifying Surgeon within 15 days of his first employment. Such medical examination shall include pulmonary function test and chest X-ray - Posterior-Anterior (PA) view to be compared with standard ILO Radiographs or Pneumoconiosis. No worker shall be allowed to work after 15 days of his first employment in the factory unless certified fit for such employment by the Certifying Surgeon.
- (2) Every worker employed in the processes shall be re-examined by a Certifying Surgeon at least once in every twelve months. Such re-examination shall, wherever the Certifying Surgeon considers appropriate, include all the tests as specified in sub-paragraph (1) except chest X-ray which shall be read by a radiologist specialised / trained in the field of reading ILO Radiographs on Pneumoconiosis and the chest x-ray which shall be carried out at least once in 3 years.
- (3) Every worker employed in any of the aforesaid processes on the date on which the schedule comes into force shall be radiologically examined by the qualified Radiologist at the cost of the occupier using a standard size x-ray plates and the power of the x-ray machine shall be more than 300 milliamperes (mA). The report of such x-ray shall be submitted to the Medical Inspector of Factories / Certifying Surgeon/ Chief Inspector within three months of the said date.
- (4) If at any time the Medical Inspector of Factories / Certifying Surgeon is of the opinion that a worker is no longer fit for employment in the said process on the ground that continuance therein would involve special danger to the health of the worker he shall

make a record of his findings in the said Certificate and the health register. The entry of his findings in these documents should also include the period for which he considers that the said person is unfit for work in the said processes. The person so suspended from the process shall be provided with alternate placement facilities unless he fully is incapacitated in the opinion of the Certifying Surgeon, in which case the person affected shall be suitably rehabilitated.

(5) No person who has been found unfit to work as said in sub-paragraph (4) above shall be re-employed or permitted to work in the said processes unless the Certifying Surgeon, after further examination, again certifies him fit for employment in those processes.

(6) If a worker already in employment and declared unfit by the Medical Inspector of Factories / Certifying Surgeon shall not be allowed to work on any of the processes specified in sub-rule (1), unless he has been examined again along with standard size chest x-ray plate from a qualified Radiologist, at the cost of the occupier and has been certified to be fit to work on the said processes again.

(7) For the purpose of medical supervision by the medical practitioner/ certifying surgeon so appointed by the occupier shall be provided for his exclusive use a room in the factory premises which shall be properly cleaned, adequately lighted ventilated and furnished with a screen, a table with office stationary, chairs and other facilities and other instruments including x-ray arrangements for such examinations and such other equipments as may be prescribed by the Chief Inspector from time to time. The medical practitioner so appointed shall perform the following duties

- (a) maintain health register;
- (b) undertake medical supervision of persons employed in the factory;
- (c) look after health, education and rehabilitation of sick, injured or affected workers;

(d) carry out inspection of work rooms where dangerous operations are carried out and advise the management of the measures to be adopted for the protection of health of the workers employed therein.

(8) The Health Records of the workers exposed to silicosis, shall be kept up to a minimum period of 40 years from the beginning of the employment or 15 years after retirement or cessation of the employment, whichever is later and shall be accessible to workers concerned or their representatives.

(9) The record of Medical Examinations and appropriate tests carried out by the said medical practitioner, a certificate of fitness and health shall be maintained in a separate register approved by the Chief Inspector of Factories, which shall be kept readily available for inspection by the Inspector and produced on demand.

3 (III). Administrative Control Measures.

(1) Work place/ Environment Monitoring: The occupier to ensure work place / environment monitoring to be performed to determine magnitude of exposure/ concentration to evaluate engineering controls, selecting respiratory protection, work practices and the need for medical surveillance.

- a) Exposure/ concentration measurements should be made in the employee's actual breathing zone.
- b) Total sampling time shall be at least 7 hours.
- c) Work place/ Environment Monitoring shall be repeated quarterly.
- d) The report of dust sampling by occupier shall be made available to the public.

(2) Training/ Awareness: Workers shall be trained in the following:-

- (a) Health effects of free silica dust exposure.
- (b) Operations and material that produce free silica dust hazards.

- (c) Engineering controls and work practice controls that reduce dust concentration.
- (d) The importance of good housekeeping and cleanliness.
- (e) Proper use of personal protective equipment such as respirators etc.
- (f) Personal hygiene practices to reduce exposure.

(3) House Keeping: Maintenance of floors-

- (a) All floors or places where fine dust is likely to settle on and whereon any person has to work or pass shall be of impervious material and maintained in such condition that they can be thoroughly cleaned by a moist method or any other method which would prevent dust being airborne in the process of cleaning once at least during each shift.
- (b) For this purpose dry sweeping or compressed air shall be used for cleanup of dust or wet methods or vacuum system with a HEPA filter shall be used.
- (c) Dust on over head ledges and equipment should be removed before it becomes air borne due to vibration, traffic and random air current.

(4) Change room and washing facilities-

- (a) Washing and bathing facilities shall be conveniently located at a place easily accessible to the workers.
- (b) Cloak room with individual lockers shall be provided for employees to store uncontaminated clothing.
- (c) Workers shall take bath and change the work clothes before they leave the work site.
- (d) Work clothes shall not be cleaned by blowing or shaking.
- (e) Eating/lunch areas shall be located away from exposed areas.

(5) Display of Notices:

- (a) Warning signs/Posters shall be displayed conspicuously in a prominent place.
- (b) The warning signs/poster shall contain the Hazards, precautions.

- (c) The display of notice shall be in the local language and also in the language understood by the majority of the workers.

(6) Personal Protective Equipment

The occupier of the every factory to which this schedule apply shall provide the following PPEs as per relevant National Standards or International Standards and as applicable to a given work place.

- (a) Dust respirator.

- (b) HEPA filter respirator or fume respirator.

- (c) HEPA filter respirator with full face piece.

- (d) Self contained breathing apparatus (SCBA)

- (e) Supplied air respirator with a full face piece, helmet or hood.

- (f) SCBA with full face piece.

- (g) Powered air purifying respirator with a HEPA filter.

4 Prohibition relating young person's- No young person shall be employed or permitted to work in any of the operations involving manipulation or at any place where such operations are carried out.

5 (1) Exemptions - If in respect of any factory, the Chief Inspector is satisfied that owing to the exceptional circumstances or in frequency of the processes or for any other reason, all or any of the provisions of this schedule is not necessary for protection of the workers in the factory, the Chief Inspector may by a certificate in writing, which he may in his discretion revoke at any time, exempt such factory from all or any of such provisions subject to such conditions, if any, as he may specify therein.

(2) The notification of Silicosis and free silica related occupational diseases by medical Practitioner /certifying surgeon should be strictly enforced and in case of any Violation, the Medical Practitioner/certifying surgeon shall be liable to be prosecuted under Sec. 89 (4) of the Factories Act, 1948.

5. Insertion of new rule 108-A.- After the existing rule 108 and before the existing rule 109 of the said rules, the following new rule 108-A shall be inserted, namely,

"108-A. Identity Card.- (1) The Manager of every factory shall issue Photo Identity Card to each worker employed in the factory in Form No 36.

(2) The Photo Identity Card shall be issued to the worker within one month from the date of entry into service and acknowledgement obtained therefor.

(3) The validity of the Photo Identity Card shall be of permanent nature.

(4) The acknowledgements obtained from the workers for having issued the photo identity card shall be produced on demand by Inspector."

6. Addition of new Form 36.- After the existing Form 35 of the said rules, the following new Form 36 shall be added, namely,-

"Form No. 36

(Prescribed under rule 108-A)

PHOTO IDENTITY CARD

(i)	Name of the Factory and Address and Registration Number		PHOTO
(ii)	Name of the Worker		
(iii)	Father's / Husband's Name		
(iv)	Date of Birth		
(v)	Address	Permanent Present	
(vi)	Nature of employment: Permanent / Temporary / Contract		
(vii)	Blood Group		
(viii)	Date of Issue		

Signature of the Holder

Issuing Authority"

[F.3(1)legal/F&B/2012-230]

By Order of the Governor,

Mukesh Jain,

Chief Inspector cum Deputy Secretary
Factories & Boilers Inspection Department

Government Central Press, Jaipur.