## **MUMBAI FIRE BRIGADE**

REVISED CODIFIED RULES FROM FIRE RISK POINT OF VIEW IN CONNECTION WITH THE ARTICLES AND TRADES ACTIVITIES CONTAINED IN SCHEDULE 'M' TO SECTION 394 AND UNDER SECTION 390 OF THE MUMBAI MUNICIPAL CORPORATION ACT.

A. Classification of building/premises for storage of Licensable commodities, Trade and

Process.

Class 'A' : LOW RISK

R.C.C. and brick walled cement concrete structures.

Class 'B' : medium Risk

Brick/stone mesonary, timber framed.

Class 'C' : HIGH RISK

Mostly timber framed structure with wooden flooring etc.

Temporary structure of non combustible materials.

B. Fire protection requirements for the storage of Licensable commodities, trades and process.

- 1. Electric power and/are lighting wiring shall be laid in metal conducts continuously bounded to earth.
- 2. Nothing shall be stored near electric wiring installation within the readies of 1 mtr.
- 3. Electric motors shall be flame proof type (wherever flammable liquid or gases are used).
- 4. Electric motors and/or appliances shall be kept free from oil, dust, dirt, grit, grease etc.
- 5. Electric switches, fittings etc. shall be flame proof type.
- 6. A free passage and also cross passages of one metered width (for floor areas over 125 Sq. Mtrs.) shall be kept in the room so that an easy access to all areas of room I available.
- 7. A clear passage of at least one metre width shall be provided from the entrance to the rear exit.
- 8. Entrance, exit and passages shall be kept free from obstruction.
- 9. A loft can be allowed to be constructed for storage only, provided the loft is of fire proof material or covered by fire proof material such as asbestos sheet, metal sheet or plaster of paris, leaving at least 6 feet from the front wall of the shop and subject to the height of the loft not exceeding 5 feet and the underside of the loft not less than & feet above the floor of the shop.
- 10. Loft area shall be not exceed more than  $1/3^{rd}$  of the total carpet area of the premises.
- 11. The frontage of the loft shall not be closed; however up to 3 feet may be provided.
- 12. Loft shall not be used as works place or for installation of machineries work benches or for hazardous and flammable storages
- 13. Wooden ceiling above the bhatti/heating process/flammable storage shall be covered with A.C. or metal (only for flammable storage) sheets.
- 14. An exhaust fan of adequate capacity and number shall be provided on the external wall (for textile cloths also).
- 15. An exhaust fan of flameproof type shall be provided in the premises and spraypainting booth.
- 16. The premises shall be kept well ventilated.

- 17. Chimneystack shall extend at least 2 metres above the roof and shall be adequately supported. It shall be provided with inspection holes, cleaning chain and spark arresters.
- 18. The portion of the wooden trussed roof in contact with chimney stack shall be adequately insulated with non-combustible materials.
- 19. Storage shall be strictly prohibited over the ovens.
- 20. Metal hood with metal ducting and exhaust fan shall be provided over the bhatties for dissipation of heat.
- 21. Metal hood with wet type of grift arrestor chimney shall be provided
- 22. Metal hood with metal ducting shall be provided over the bhatti; with flame arrestor.
- 23. Service tank shall not be installed above the furnance and quantity of oil and coke shall not exceed 227 litres and 550 kgs. Respectively.
- 24. a) ironing on loft shall be prohibited.
  - b) Number of irons shall not exceed three.
- 25. Pilot lamps shall be provided in the circuit of the electric Iron Non-combustible rests shall be provided for keeping hot irons.
- 26. Printing inks shall be kept in original containers on metal racks away from combustible storage.
- 27. Trade waste, paper shavings and oily rage shall be off deposited in metal bins with lids and shall be disposed daily before closing of the premises.
- 28. Preparation of adhesive cast shall be done in a separate enclosure of A.C. or metal sheets
- 29. Fuel containers (pressure tanks) of the oil pressure stove shall be of approved type fitted with (a) approved pressure guage (b) relief valves.
- 30. Pressure tanks shall be segregated or screened off from the workspace by a dwarf wall either.
  - (a) Brick masonary of 22.5 cms. Thickness; or
  - (b) Cement concrete of 10cms thickness minimum with height at least one metre above the pressure relief valve and the length extending on either side at least 0.5 metres from the body of the tank.
- 31. Quantities of coke, edible oils and kerosene oil shall be restricted to 100 kgs, 50kgs and 50 litres respectively and shall be kept at least 2 mtrs. Away from any source of heat. If separate storage room is provided the quantities shall be up to 250 kgs, 100 kgs and 100 litres respectively.
- 32. Commodities shall be stacked on either sides of the passage in lots having 0.75 mtrs. Clearance in between the lots.
- 33. Stacking shall be restricted to a height keeping a clearance of at least one metre from the ceiling/trusses for ceiling and 15 cms. From side walls and 10 cms. From flooring.
- 34. Stacking height shall not exceed 2.25 mtrs
- 35. Stacking height shall not exceed two drums high if stored horizontally.
- 36. Leaking and damaged containers shall not be allowed to be stored in the premises.
- 37. No mixing, refilling or decanting of the commodities shall be permitted
- 38. The flooring shall be kept free from oil deposits.
- 39. Oxidising substances shall not be stored in the premises.
- 40. Oxidising substances shall not be kept in original container in a separate gala.
- 41. Raw materials shall be stored separately away from finished goods.
- 42. The commodity shall be kept in gunny bags or suitable containers/enclosure.
- 43. It shall be kept in metal containers with proper lids.
- 44. The commodity shall kept in well stoppered/sealed metal containers on metal racks.

- 45. The commodity shall be kept in small size glass bottles, the same shall be kept in metal cupboard suitably perforated for ventilation purpose.
- 46. It shall be kept on steel racks.
- 47. Bleaching powder shall not be kept along the acids.
- 48. The storage place shall be kept free from the ingress of rainwater.
- 49. No oily gunny bags or sacks shall be kept along with the bags and sacks.
- 50. Oily rags shall not be stored.
- 51. Wet raw wool shall not be stored.
- 52. Storages shall be done at least 2 mtrs. Away from ovens or other source of heat and 0.75 mtrs. From electric installation.
- 53. Acid jars/carboys shall be kept on bed of fine sand of at-least 7.5 cms. thickness in a brick masonary kerb of 15 cms. Height.
- 54. No combustible commodities shall be kept. Stored within a distance of 1.75 mtrs. From this commodity.
- 55. The commodity shall be kept in well stoppered containers at least 1.75 mtrs. Away from any other combustible or flammable commodity.
- 55A. No storage shall be done near electrical installation, wiring etc.
- 56. No flammable and other combustible commodities shall be stored on the premises.
- 57. No flammable commodities shall be kept on the premises.
- $58. \ No\ combustible\ and\ other\ flammable\ commodities\ shall\ be\ kept\ on\ the\ premises.$

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- 60. Smoking, cooking dwelling and use of naked light, shall be strictly prohibited on the premises.
- 61. Use of open flames shall be strictly prohibited.
- 62. Use of naked flames and or any kind of heating source shall be strictly prohibited.
- 63. It shall not be allowed to be exposed to any source of light.
- 64. Electric switches shall be put off after the days work.
- 65. Rear door shall be covered completely with metal sheet and kept closed all the time. This is in view of staircase close to the room. Door should be used only in case of emergency.
- 66. Requirements stipulated already shall be strictly adhered to
- 67. Different type of commodities shall be stored in different lots at least one metre away from each other.
- 68. Imposed load on any electric motor/appliances shall not exceed its designed load.
- 69. Electric heating appliances shall be provided with thermostatic control valve.
- 70. An adequate free space shall be maintained all around the machineries for free movements of the workers.
- 71. "No Smoking boards shall be conspicuously displayed on the premises in Marathi, English and in pictorial sign.
- 72. An additional exit shall be provided at the rear side of the premises.
- 73. An appropriate exit shall be provided where hazardous activity and commodities are carried/kept.
- 74. One dry chemical powder type fire extinguisher of 10kgs. Capacity and 2 buckets filled with dry and clean sand shall be kept on the premises.
- 75. Two dry chemical powder type fire extinguisher of 10 kgs capacity and four buckets filled with dry and clean sand shall be kept on the premises
- 76. One water type CO2 pressure fire extinguisher of 9 Litres capacity and two buckets filled with clean and clear water shall be kept on the premises.

- 77. One water type CO2 pressure fire extinguisher of 9 Litres capacity and four buckets filled with clean and clear water shall be kept on the premises.
- 78. One water drum of 200 Litres capacity each for every 100 Sq. Mtrs. Area shall be provided along with two buckets filled with clean and clear water.
- 79. Two buckets filled with dry and clean sand shall be kept on the premises.
- 80. All fire extinguishers, sand buckets and water buckets shall have I.S.I. certification mark.

Sd/-Chief Fire Officer,