

GOVERNMENT OF MAHARASHTRA

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Tel No. 022-2667 7555

Fax No.022-2666 0287

Web site :www.mahafireservice.gov.in

E-mail : info@mahafireservice.gov.in

Directorate of Maharashtra Fire Services

Maharashtra Fire Service Academy,

Vidyanagari, Santacruz (East),

Mumbai - 400 098

Date: 7th August, 2013.

C I R C U L A R

Sub : Use of pipe for various types of water-based Fire fighting installations

Ref : (1) IS 3844- Code of Practice for installation & maintenance of Internal fire hydrants and hose rills on premises

(2) IS 13039 – Code of Practice for provision and maintenance of external hydrant system

(3) IS 15105 – Design and installation of fixed automatic sprinkler fire extinguishing system

Background :

As per the Section 3 of Maharashtra Fire Prevention and Life Safety Act, 2006(Fire Act), it is mandatory to provide minimum fire protection systems in the building of various occupancies. As per Schedule I of the Fire Act, and Table.23 of Part-IV of National Building Code, 2005, minimum fire safety systems are recommended for fire protection of the building. In this recommendation, the major portion is of water base fire protection systems such as external and internal fire hydrant systems, sprinkler system etc. There are Indian Standards (IS) published by Bureau of Indian Standards which provides all the details regarding designing, commissioning, testing of such systems.

This office has received requests for clarification from Chief Fire Officers and nominated officers of ULBs and SPAs and also from Licensed Agencies registered under the Fire Act for use of pipes in hydrant and sprinkler systems. Following IS codes are generally referred for installation of water based fire suppression systems. The standards are as under :-

(1) IS 3844- Code of Practice for installation & maintenance of Internal fire hydrants and hose rills on premises

(2) IS 13039 – Code of Practice for provision and maintenance of external hydrant system





(3) IS 15105 – Design and installation of fixed automatic sprinkler fire extinguishing system

As per the IS standards mentioned above, **Cast Iron (CI) pipes, Mild Steel (MS) pipes, Galvanized Iron (GI) pipes** are used for such installations. For the benefit of Chief Fire Officers and nominated officers working in ULBs and SPAs and also the Licensed Agencies, it is clarified that all the types of pipes prescribed in the relevant IS standards and as amended from time to time, should be used for carrying out installation of water base fire fighting systems.

2. Following IS codes are generally referred for installation of water based fire suppression systems. The details are as under :-

(A) Cast Iron (CI) pipes

- (1) Horizontally cast iron pipes IS-7181
- (2) Vertically cast iron pipes IS 1537
- (3) Centrifugally cast (spun) IS 1536 iron pipes
- (4) Centrifugally cast (spun) iron class "A" pipes with Tyton joints conforming to IS 1536.
- (5) The mains should be of cast iron pipes conforming to IS 1536 : 1976, IS 8329 : 1977, IS 1537 : 1976 and IS 7181 : 1986
- (6) The fittings of cast iron pipes should conform to IS 1538 (Parts 1 to 23) : 1976
- (7) The underground pipes should be either of cast iron conforming to IS 1536 : 1976 or MS/G1 [conforming to IS 1239 (Part 1) : 1979], in which case it should be properly treated with a coat of primary paint with two coats of bitumen paint or wrapped as per IS 10221

(B) Mild Steel (MS) pipes

- (1) Wrought or mild steel pipes (galvanized or not) of heavy grade conforming to IS 1239 (Part 1) and IS 1978 (when installed underground) or electric resistance welded steel pipes conforming to IS 3589 having welded joints and coated and wrapped as per IS 10221.
- (2) Mild steel conforming to IS 3589 : 1981
- (3) Mild steel pipes conform to IS 1239 (Part 2) : 1982.

(C) Galvanized Iron (GI) pipes

- (1) The pipe work to the water motor should be galvanized, medium grade complying with IS 1239 (Part 1).
- (2) The rising mains/down-comer mains should be of galvanized iron pipes conforming to medium class of IS 1239 (Part 1) : 1979 and their fittings should be according to IS 1239 (Part 2) : 1982.

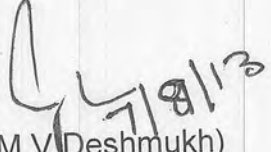


(2) The rising mains/down-comer mains should be of galvanized iron pipes conforming to medium class of IS 1239 (Part 1) : 1979 and their fittings should be according to IS 1239 (Part 2) : 1982.

3. Without prejudiced to the Maharashtra Fire Prevention and Life Safety Measures Act, 2006 requirement all Chief Fire Officers and Nominated Officer and Licensed Agencies shall adhere to the provisions prescribed in the relevant IS codes to avoid any confusion.

4. This circular shall come in force with immediate effect.




(M.V. Deshmukh)
Director,
Maharashtra Fire Service

Copy submitted for information:-

The Principal Secretary (I), Urban Development Department, Mantralaya, Mumbai,
The Principal Secretary (II), Urban Development Department, Mantralaya, Mumbai
The Chief Executive Officer, MIDC, Andheri, Mumbai
The Commissioner/Director, Directorate of Municipal Administration, Worli, Mumbai
The All Divisional Commissioners,
The All Collectors,

Copy forwarded for information and further necessary action :-

The Chief Offices of All Municipal Councils/Nagar Panchayati,
The All Chief Fire Officers/In-charge Fire Officers, Urban Local Bodies and Special
Planning Authorities,
The Section Officer, Urban Development Department (UD-20), Mantralaya, Mumbai