Circular No. 608(a) – Quality Control Date: 07.09.2009

Sub.: GI pipes and fittings.

There are some reports of inferior quality GI being supplied to the site. To correct the situation the standards (BIS) for GI pipes are being specified herein. QC may regularly check the weight of the pipe to ensure that quality pipes are supplied at sites.

Pipes having NB or Inner dia of ½", ¾" of 1" should be of medium weight. Pipes with NB of more than 1" should also be of medium weight. However, in case of non-availability light weight pipes may be ordered. Project Managers and QC must check the quality and compare with the PO. Wherever medium pipes are ordered, light weight pipes must not be accepted.

Normally fittings should be of HB make, gate valves/ ball valves of 'Zoloto' make and ballcocks should be of 'Viking'/'Kohinoor' make. If any other make is received, please inform Purchase Division.

Pipes are sold in wholesale in weight and in retail by length. Therefore, there is every likelihood of suppliers supplying material of lesser weight. The standards for weight and wall thickness are given below

S. No.	GI Pipe Size	Wall Thickness (mm)	Weight in Kgs Per Meter
1.	½" - Medium	2.60	1.21
2.	¾" – Medium	2.60	1.56
3.	1" – Medium	3.20	2.41
4.	1 ¼ Light	2.60	2.54
5.	1 ¼ Medium	3.20	3.10
6.	1 ½" Light	2.90	3.23
7.	1 ½" Medium	3.20	3.56
8.	2" Light	2.90	4.08
9.	2" Medium	3.60	5.03
10.	2 ½" Light	3.20	5.71
11.	2 ½" Medium	3.60	6.42
12.	3" Light	3.20	6.72
13.	3" Medium	4.00	8.36
14.	4" Light	3.60	9.75
15.	4" Medium	4.50	12.20

As per BIS standard 7% tolerance is permitted. Site Engineers can easily verify wall thickness using a vernier calliper . QC should check weight, inner dia and valve thickness regularly, preferably once a month in each site.

The size of pipes to be used for villas/apartments projects are as follows:

S. No.	Description of use	For bungalows project	For apartment projects
1	Inside bathrooms	¾" main lines & ½" branch lines	½"
2.	Kitchen and utility	½"	½"
3.	External line for bathroom (supply)	Vertical 1 ¼" & 1" horizontal line	I & II floor ½", III floor ¾", IV and V floor 1".
4.	Drinking water line (supply).	½" HDP line from street	¾" external line
5.	Terrace lines	-NA -	Borewell water 2" main line with 1" branch lines. Drinking water 1 ½" mainline and ¾" branch line.
6.	Supply to OHT	¾" HTP pipe from street	1 or 1 ¼" GI line from borewell

Engineers must ensure use of pipes as above. Any change /deviation should be made only with prior approval of M.D. Nipple of 2" & 4" may be ordered. Nipples above that size may be made at site.

Managing Director.