2.9.14

Steel Quantity Release

Applies to all plants having height > 30 m.

1. Design should give the estimated steel consumption for each plant, at time of DD finalization, as follows:
    a. Foundations (in tonnes)
    b. Above foundations (in tonnes)
    The actual tonnage (including lap lengths) for different bar diameters to be used at site shall be estimated through BBS produced from VFC drawings.
    c. The sum of a.+b. is more than 5% higher than the quantity assumed at time of Concept budget finalization, approval of Director-Design will be needed.
2. The steel attachment by PCA will adhere to following norms (with appropriate allowance for design/handling wastage, contractor's temporary works / equivalent):
    a. Foundations – as estimated by design at DD stage
    b. Per floor thereafter as follows:
        i. S = Estimated steel consumption per sq. ft. of BUA of the plant, above foundations = (Amount of steel estimated as per 1 b. / BUA of the plant)
        ii. Total building height is to be divided into 4 quarters of approximately equal nos of levels.
        iii. Steel attachment as follows:

Level above ground	**Maximum Steel to be attached**		
	Height 30-70m	Height 70-150m	Height 150-210m
First 1/4th	S x 1.10 x BUA of the Floor	S x 1.3 x BUA of the Floor	S x 1.45 x BUA of the Floor
Second 1/4th	S x 1.05 x BUA of the Floor	S x 0.95 x BUA of the Floor	S x 0.90 x BUA of the Floor
Third 1/4th	S x 0.95 x BUA of the Floor	S x 0.90 x BUA of the Floor	S x 0.85 x BUA of the Floor
Final 1/4th	S x 0.90 x BUA of the Floor (or balance out of 1b. – steel consumed for lower 3/4th levels of the plant)	S x 0.85 x BUA of the Floor (or balance out of 1b. – steel consumed for lower 3/4th levels of the plant)	S x 0.80 x BUA of the Floor (or balance out of 1b. – steel consumed for lower 3/4th levels of the plant)

Any leftover quantity from previous stage (compared to this maximum limit) can be used for subsequent stage(s).

3. PCA shall carry out steel quantity reconciliation for each plant once ½ the no. of levels of the plant are completed and ensure that the actual steel consumed does not exceed the aforesaid parameters. This exercise needs to be completed within 30 days of ½ the no. of

levels (above foundation) of the plant being completed. If there is any excess consumption, same should be brought to attention of HOC-Structural Design immediately and if not resolved within 15 days thereafter, informed to COO / Director-Design.