SOUTH CENTRAL RAILWAY
OFFICE OF THE PRINCIPAL CHIEF ENGINEER
5TH FLOOR, RAIL NILAYAM, SECUNDERABAD - 500071

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CAO/SC
Sr.DENs/Co-ord/SC, HYB, BZA, GTL, GNT & NED
Dy.CE/EWS/LGD, Sr.DEN/LGDS, Dy.CE/TM/Lines/BZA & Dy/CE/CPOH/RYP

Sub: System improvement guide lines for bringing economy in concrete design mix-reg.

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CVC published an article in their web site on "Design mix concrete - Economy & Environmental issues". As per the above article, the range of cement content for various grades of concrete observed in all Govt./Semi Govt. bodies are as follows.

Grade of Concrete	Cement content in Kg. per Cum	Average cement content in kg.per Cum
M15	250 to 300	275
M20	300 to 330	315
M25	310 to 360	335
M30	340 to 390	365
M35	360 to 420	390
M40	380 to 450	415
M45 to M55	400 to 450	425

It is to inform that increase in cement quantity more than required may have adverse effect on the durability of concrete apart from avoidable additional cost. Therefore, for Design mix concrete, efforts should be made to use minimum amount of cement in the above stated ranges at the time of approval of Design mix. In case Design mix contains cement quantity more than average shown above, design mix will be approved by SAG level i.e .(i) CE/Construction of the project in construction organization. ii) ADRM/infra in divisions. (iii) For workshops and other similar works by Concerned HOD. Where ADRM/infra is other than Civil Engineer, Design mix will be approved by mentor HOD of HQ. However, while approving all possibilities should be explored to reduce the cement content and it should not be a ritual without any technical inputs.

This issues with the approval of PCE.

09.02.2022
(N.Anjaiah)
Dy.CE/Works

C/o: for kind information of.
CPD/SD, CPD/BW, CTE, CBE, CGE, CE/P&D, CE/SD, CE/Works, CE/TP, CE/TM, CE/RSW, CWM/CPOH/RYP & CE/WS&F.
DRMs/SC, HYB, BZA, GTL, GNT & NED.
CVO/Engg/SC.