

(ke)

— *Mood Yashwanth* — (15)

OFFICE OF THE CHIEF ENGINEER, P.W.D. RAJASTHAN, JAIPUR

No. CE/PWD/SE(P&M)/Circular/D- 170

Dated: 29.5.2006

**CIRCULAR NO. 1/2006**

**Safety in Excavation work in Buildings**

It has been observed that proper precautionary measures are not being adopted for safety at the time of excavation of foundation for the buildings which results in loss of lives and money.

For proper safety, the work should be got executed keeping in view, the provisions contained in National Building Code of India 2005 and relevant IS codes to avoid any mishappening. Specific care should be given on the following points as given in the various Codes as under:-

**1. National Building Code of India 2005**

- (i) **Type of Strata:** Adequate precautions depending on the type of strata met with during excavation (like quick sand, loose fills and loose boulder) shall be taken to protect the workmen during excavation.
- (ii) **Overhang and Slopes:** During any excavation, sufficient slopes to excavated sides by way of provision of steps or gradual slopes shall be provided to ensure the safety of men and machine working in the area.
- (iii) **Fencing and Warning Signals:** When excavation is going on, for the safety of public and the workmen, fencing shall be erected, if there is likelihood of the public including cattle frequenting the area. Sufficient number of notice boards and danger sign lights shall be provided in the area to avoid any member of public from inadvertently falling into the excavation.
- (iv) **Vibrations from nearby sources:** Vibration due to adjacent machinery, vehicles, rail roads, blasting, piling and other sources require additional precautions to be taken.

**2. Handbook on Construction Safety Practices (SP 70 : 2001)**

- (i) **Minimum check and clear edge of trench:** There is a tendency to dump the excavated material just on the edge of the trench where excavation is done manually. The material may slide back into the trench or apply additional load on shoring. A provision of clear berm of a width not less than one-third of the final depth of excavation is recommended. In areas where this width of the berm is not feasible, the reduced berm width of not less than 1 m. should be provided.
- (ii) **Plant and Machinery:** The excavating equipment should be parked at a distance of not less than the depth of the trench, or atleast 6 m. away from excavated sides for trenches deeper than 6 m.

**3. Excavation work-Code of Safety (IS 3764 : 1992)**

- (i) **Shoring and Timbering:** All trenches in soil more than 1.5 meter deep shall be securely shored and timbered.
- These instructions should be followed strictly, otherwise concerned officer will be responsible for the consequences.

*E. J. ...*

Chief Engineer cum Addl. Secretary  
P.W.D., Rajasthan, Jaipur.

29/5/2006

Dated: 29.5.06

No. CE/PWD/SE(P&M)/Circular/D- 170

- Copy forwarded to the following for information and necessary action Please:-
- 1. P.S. to Hon'ble PWD Minister, Govt. of Rajasthan, Jaipur.
  - 2. The Principal Secretary to Govt. PWD Rajasthan, Jaipur.
  - 3. Addl. Chief Engineer PWD Zone ..... (All)
  - 4. Superintending Engineer, PWD Circle ..... (All)
  - 5. Executive Engineer, PWD Dn. .... (All)
  - 6. Sr. P.A. to CE/CE(R)/CE(NH)/All SE's & EE's in CE's Office, PWD, Jaipur.

*G. J. ...*