

Revised method of water pressure in control fissure of perilous rockmass

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Abstract: It is well known, water pressure in control fissure of perilous rock at rainstorm state belong to control load in engineering design against perilous rock, while whether the static water pressure formula is effective or not in calculating water pressure in control fissure is one of important problems concerned by scholars in the Three Gorges reservoir area for years. 72 sets of experiments about water pressure in control fissure have been made, further, authors analyses difference between data through testing directly and calculating in static water pressure formula, then the important conclusion that static water pressure formula isn't effective in calculating directly water pressure calculation in perilous rock is attained, presenting reduction coefficient to static water pressure formula. The authors establish calculating method of water pressure in sliding perilous rock under pressure-shear and toppling perilous rock under tension-shear. These formulas are useful for aperture of control fissure varying between 2.0cm and 0.2cm.

Key words: rock mechanics; revised method of water pressure in fissures; model experiment; perilous rock

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