三峡水库调度对库岸斜坡体内渗透压力与斜坡稳定性影响研究

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摘要　　在分析三峡库区松散堆积斜坡岩土体结构和地下水赋存条件的基础上，着重探讨了三峡水库水位调节时斜坡中渗透压力的作用方式和强度，用地下水动力学中潜水渗流理论研究某类边界条件下的渗透压力，提出斜坡渗透压力评价和计算公式，从而为客观地评价斜坡的稳定性状况、设计合理的斜坡防治工程及节约工程造价提供依据。

关键词　　工程地质；三峡水库；渗透压力；稳定性；防治工程

分类号

RESEARCH ON EFFECTS OF PERMEABILITY PRESSURE ON SLOPE STABILITY DURING REGULATING WATER LEVEL IN THREE GORGES RESERVOIR

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Abstract

 Based on analyzing rock and earth structure in unconsolidated slopes，the style and intensity of permeability pressure in slopes during regulating water level in the Three Gorges Reservoir are discussed. Due to many unsolved boundary problems in simulating variation of water flow in slope，a new formula for calculating permeability pressure in slope is proposed，by studying on permeability pressure in certain boundary conditions with one-dimensional seepage theory. With this formula variation of phreatic surface and permeability pressure in Beimengou landslide in the Three Gorges Reservoir area，are calculated. The results show this formula is reasonable and effective for certain boundary；and it can provide a basis for appraising the stability condition of slopes and designing control projects.

Key words engineering geology；Three Gorges Reservoir；permeability pressure；stability；control project

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