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论文

鲤鱼塘水库溢洪道边坡稳定性的岩体结构分析

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摘要：

由侏罗系千佛岩组砂岩、泥岩及炭质页岩组成的软硬相间的互层边坡，受不同岩层工程特性的影响，开挖引起不同部位岩体产生拉裂、松弛及沿软弱结构面的蠕滑等变形。为分析地层岩性对边坡稳定性的影响，对侏罗系千佛岩组地层进行工程地质岩组划分，分为薄层泥岩与中薄层砂岩互层岩组、巨厚层砂岩夹中厚层砂岩和薄层泥岩岩组。在此基础上，通过对边坡岩体结构的详细研究，确定了控制边坡稳定性的结构面为层间软弱夹层，进而对边坡表层碎裂岩体、结构面组合形成的块体稳定性进行分析，结果表明，边坡浅层岩体整体稳定性差，局部处于极限平衡状态，深部岩体稳定性相对较好，边坡稳定性的岩体结构分析结果与边坡变形状况吻合。

关键词： 边坡,工程地质岩组,岩体结构,稳定性

ROCK MASS STRUCTURE ANALYSIS OF SPILLWAY SLOPE STABILITY AT LIYUTANG RESERVOIR

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Abstract:

Slope interlayered by sand rock，mud rock and macker in Qianfuyan Formation In the Middle Jurassic generated deformation，such as cracks，relaxation，and creeping along soft discontinuities

Engineering geology groups of rock masses of Qianfuyan Formation in the Middle Jurassic was divided into group of thin layer mudstone and thin layer sandstone，group of thick bedded sandstone with middle layer sandstone and thin layer mudstone interlayer According to detailed study of rock mass structure，soft interlayer was confirmed as key discontinuity for slope stability，and then the stability of superficial slope in cataclastic texture rock mass and blocks combined by discontinuities were analyzed，which indicated that superficial slope stability was worse，and the stability of large scale block was better The result accorded with the deformation of slope.

Keywords: Slope Engineering geology groups of rock masses Rock mass structure Slope stability

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