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铁岭柴河1#尾矿坝数值模拟及其稳定性分析 [点此下载全文](#)

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摘要:

铁岭柴河1#尾矿坝位于辽宁省开原市靠山镇猴石社区的关门山沟内, 由初期坝和尾矿堆积坝组成。本文在该尾矿坝现场勘察的基础上, 将坝体实测主轴剖面进行合理地概化和延伸, 建立有限差分数值模型, 并以Duncan—Chang双曲线模型来反映尾矿坝岩土体应力—应变本构关系, 对处于正常运行条件下的坝体进行数值分析, 从而揭露坝体内部应力状态, 同时在数值分析结果的基础上, 采用基于极限平衡理论的条分法——Fellenius法和Bishop法对尾矿坝的稳定性进行计算, 从而实现了对尾矿坝稳定性的定量分析, 对尾矿库的安全生产具有重要指导意义。

关键词: [尾矿坝](#) [数值模拟](#) [稳定性分析](#) [有限差分法](#)

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Abstract:

The No.1 Tailing Dam in Chaihe, TieLing City, lies in Guanmen mountain ditch in Houshi community, Kaoshan town, Kaiyuan city, Liaoning province, which is composed of starter dam and embankment. On the basis of the on the spot investigation about the dam, in text the finite difference numerical model is builded through reasonably generalizing and extending the actual principal section of the dam. Then, Duncan—Chang model is used for disclosing the relative between stress and strain of the tailing dam, and the tailing dam in a existing state is analysed for exposing the stress condition in the dam, at the same time, the stability analysis of the tailing dam is proceeded through the slice method based on the limiting equilibrium theory like Fellenius method and Bishop method to realize the quantitative analysis for the tailing dam stability, which is the very significant guiding for the safety of the tailing pond.

Keywords: [Tailing Dam](#) [Numerical Simulation](#) [Analysis of Stability](#) [the Finite Difference Method](#)

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