

大型水电工程复杂生态环境风险评价

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Risk evaluation for complex ecological environment of large-scale hydropower engineering

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- 摘要
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摘要 针对大型水电工程复杂生态环境风险的复杂性,传统风险评价方法难以对大型水电工程建设带来的复杂风险进行客观评价.基于重庆酉酬水电站案例以及国内外水电工程建设生态环境风险的相关文献,提出了大型水电工程复杂生态环境风险关联因素及其量化维度结构.在此基础上建立了生态环境风险关联度模型,以此为基础通过聚类对复杂生态环境风险关联因素进行结构分析,据此构造了风险关联因素的权重模型,得出风险关联因素权重的排序结果.最后利用重庆酉酬水电站工程调研资料进行实证分析,为大型水电工程建设生态环境保护和维护提供借鉴.

关键词: 水电工程 复杂生态环境 风险 评价

Abstract: Aiming at the complexity for the complex ecological environment risks of large-scale hydropower engineering, it is difficult for the traditional methods of risk evaluation to objectively evaluate the complex risks that large-scale hydropower engineering brought to ecological environment. Based on the case of Chongqing Youchou hydropower station and the related at home and abroad literatures about the ecological environment risks of hydropower engineering construction, the structure of risk related-factors and their quantitative dimension of complex ecological environment of large-scale hydropower engineering is proposed. Then the risk related-degree model for ecological environment is constructed. Through clustering, the structure for risk related-factors of complex ecological environment is analyzed. The weight model of risk related-factors is constructed to obtain their ordering results. Finally, the investigation data from Chongqing Yuchu hydropower station is used to do empirical analysis, which provides the references for the ecological environmental protection and maintenance of large-scale hydropower engineering's construction.

Key words: hydropower engineering complex ecological environment risks evaluation

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