RESEARCH ON DESIGN FLOOD RISK BASED ON JC METHOD

Lingzhi Huang*, Zheng Si, Shouyi Li

Xi'an University of Technology, Xi'an, Shaanxi, 710048, China

Abstract

The risk of design flood is an important reference for hydroelectric project planning and design. In this paper, JC method, which is usually used to calculate structure reliability, is introduced and used to analyze the downstream design flood risk considering upper reservoirs’ influence; besides, the design flood hydrograph is deduced from the typical flood hydrograph. So, JC method not only can consider the influence of upper reservoirs, but also can calculate the design flood risk on that impact. This is a new attempt to study flood and water project design.

Key words: design flood risk, design flood region composition, JC method

Received: November, 2012; Revised final: February, 2014; Accepted: March, 2014

* Author to whom all correspondence should be addressed: hlzsz@126.com; Phone: 0086-15829472610