

O 33. DESIGN OF SPILLWAY DESIGN

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ABSTRACT: Spillways are structures that have an important place in the project cost of a dam and have important functions related to the security of the dam. The labyrinth spillway concept involves reducing the reservoir water level by increasing the effective length of the spillway crest with various forms applied on the plate, increasing the discharge that can be discharged at a certain lake level, or passing a constant stream with smaller crest water loads. These weirs can also be considered as alternatives that provide advantages within the topographic boundaries. In addition, easier construction and more reliable operating conditions compared to classical controlled spillways are other advantages. Spillway length, crest height and spillway capacity are important parameters in spillway design. Application of the labyrinth spillway is also important for available dams as it can be applied to constructed and under operation dams by increasing spillway length and dam capacity. During the last decade application of the labyrinth spillways show increasing trend. In this study, improvement and development of the labyrinth spillways will be surveyed and investigated.

Key words: Labyrinth spillways, spillway design, dam spillway, spillway capacity.