

# STUDY ON EFFECTIVE INJECTION METHOD FOR DAM FOUNDATION GROUTING

**Abstract :** In dam foundation grouting, grout mix proportion is designed based on Lugeon value, which is an index of permeability of foundation. The "Thick or thin?" in the grout mix proportion is still important and difficult problem. Recently, researches on the optimum mix proportion of the grout are positively advanced, and a system which can automatically change the grout mix proportion, a "Variable Mix Injection System", has been developed. The system could improve the efficiency of the dam foundation grouting. In this study, the process of the injection was analyzed based on actual grouting data obtained at a dam site. In addition the method of predicting an amount of cement based grout take and the method of controlling the optimum grout mix proportion was investigated.

**Key words:** dam foundation grouting, Lugeon value, cement based grout, thickening sequence of grout mix proportion, unit cement take