

## **Research about rationalization of earthquake resistance assessment method of concrete dam**

### **[ Point ]**

With the occurrence of major earthquake such as an earthquake in southern Hyogo, it has been strongly required to ensure earthquake resistance capacity for larger earthquake motion (earthquake motion level 2) than the traditional motion, in the case with dam, an important structure. Crack on dam body concrete is considered as one of the damage forms of gravity concrete dam at the time of large-scale earthquakes. A study has been progressed about crack development analysis of gravity concrete dam at the time of earthquake by using distributed crack model.

As an outcome of this study, crack development analysis was conducted by using distributed crack model in which the occurrence of crack could be considered, and stability analysis was conducted on a steady basis after the earthquake under the crack occurrence state that was obtained as a result. An earthquake resistance capacity assessment technique of gravity concrete dam at the time of large-scale earthquake was suggested.

Keywords: large-scale earthquake, gravity concrete dam, distributed crack model, crack development analysis