Research regarding rationalization of fill-dam construction and management method.

[Point]

In recent year, regarding fill-dam constructions, aiming cost reduction and shorten construction period, material collection, and transportation efficiency, embankment bodies' rationalization are required. Moreover, the construction management test for ensuring quality requires much effort and time, for smooth body construction, acceleration of test method is urgently needed. In this reason, this subject was aimed for thickening fill-dam core material embankment construction and laboursaving and acceleration of quality management. The main results are as follows.

① We proposed method using turning force as a mixing method of core materials, coarse material and fine-grain material, and verified its applicability.

②By RI method , which archived wider measuring range and acceleration of measuring, we made numeric assessment of relationship between core materials' numbers of surface compaction and density distribution, and inner surface compaction layers' density distribution and lamination effect, possible, then, by using the results, we verified that it's possible to increase core surface compaction thickness maximum 40cm.

③Optimizing many points of the embankment management test data obtained by application of RI method, we proposed the quality management method, which is a way of appropriately changing the management value, with detecting material changes.

Keyword：material mixture, surface compaction thickness, quality management, core material, fill-dam, rationalization