

General comments

The present work studies the effect of construction parameters including compaction effort, compaction moisture content, and the moisture content at the time of failure on the embankment breaching due to overtopping. The contribution of this study is useful and interesting. My studies in this field shows that the some of the parameters such as effect of compaction have been studied in the previous researches (e.g. Ali Asghari Tabrizi, Ezzat Elalfy, Mohamed Elkholy, M. Hanif Chaudhry & Jasim Imran (2016): Effects of compaction on embankment breach due to overtopping, Journal of Hydraulic Research, DOI: 10.1080/00221686.2016.1238014.). But the effect of crack in the hydraulics of embankment breaching is novel. The reported data have good agreements with physics of this phenomenon. According to my viewpoint, the measured data were not reported in scale of a research paper. For example, the embankment surface profiles at various times were not shown in the results. The main strong section of the present study which is about the effect of cracks in the breaching process was not discussed well. Also, to ensure the reliability of the measurements, the repeatability of the tests must be checked by considering the various parameters for all cases prior to analysis the results. In this work, the test repeatability was not discussed.

Specific comments

The present study is about the embankment breaching which is made by the cohesive soils. However, the effect of the cohesion on the hydraulic of breaching was not studied.

Technical corrections

The literature review of present paper could be rewritten. Some major studies must be reviewed, and the novelty of present is expressed clearly. The temporal embankment profiles for each case were not presented, while it is very important for such studies. Finally, a precise indication must be provided for the impact of the mentioned parameters on the embankment breaching.