

عنوان مقاله:

Preliminary Assessment of the Operational Dam's Performance in November ۱۲, ۲۰۱۷ Sarpol-e Zahab Earthquake

محل انتشار:

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خلاصه مقاله:

Following the November ۱۲, ۲۰۱۷ Sarpol-e Zahab earthquake with a magnitude of ۷.۳ in Richter scale, emergency inspection of dams has been performed for dams located at the epicentral distance of ۱۲۵ km, according to the ICOLD recommendations. In the mentioned zone, there are ۱۶ impounded operational storage dams. Inspected dams had no apparent significant damages and only some thin cracks had been observed in Tange-Hamam Dam that is a non-homogenous embankment dam and the closest operational dam to the epicenter of the earthquake, with a distance of ۲۵ km from the epicenter. There were some defects such as longitudinal cracks and some tiny transversal cracks on the crest of the dam as well as some vertical cracks in the spillway's left approach wall. Regarding the observed evidence, more precise investigations of the dam behavior were performed through the instrumentation data. Settlement measuring on magnetic plates shows the settlement of ۱۳ cm near the embankment surface at the middle of the dam crest, which is about ۰.۲۲ of the dam height. This rate of strain has been compared with some published international experiences, which generally shows the acceptable performance of the dam. To ensure the safety of the dam, monitoring of all instruments should be continued, as well as the precise geodetic measuring in the dam body, which is in progress now.

کلمات کلیدی:

Sarpol-e Zahab earthquake, Tange-Hamam Dam, Instrumentation data, Dam settlement

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