

عنوان مقاله:

An Analytical Estimation of the Strength of River Dikes Concrete Revetments Subjected to Ice Loads in Condition of Existence of Nonzero Shear Force

محل انتشار:

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خلاصه مقاله:

Reinforced concrete continuous coverings are partly used as a fine revetment in river dikes. In icy regions, there is the possibility of freezing the water surfaces. If this condition happens, even once during the design period of a revetment, it will have severe destructive effects on it. Therefore, the strength control of revetments under the ice loads caused by frozen water surface would be useful in sub-zero conditions. The most critical condition would be forming a frozen layer on water surface then lowering the water level under this frozen layer that may cause the frozen layer floated. So far, analytical studying of the revetment strength under ice loads considering above situation has been carried out so less. This method would be applicable in rivers capable of freezing in which concrete lining dikes is designed and applied. In this paper, an analytical method is proposed to determine the concrete revetment strength under the condition of existence of nonzero shear force

کلمات کلیدی:

Frigid region rivers, Dikes, Concrete revetment, Analytical solution, Shear force

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