

(PREVIEW)

IS : 7495 – 1974

Indian Standard

CRITERIA FOR HYDRAULIC DESIGN OF SILT SELECTIVE HEAD REGULATOR FOR SEDIMENT CONTROL IN OFFTAKING CANALS

1. SCOPE

1.1 This standard covers the criteria for hydraulic design of silt selective head regulator for sediment control in off taking canals.

FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 1 October 1974, after the draft finalized by the Canals and Canal Linings Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 The total sediment load carried by any flow can be divided into two parts: the bed load comprising of particles essentially in contact with the bed and the suspended load. Comprising of particles in suspension. The sediment particles near the bottom are much coarser than those in upper layers. Preventing the entry of this coarser bed sediment and allowing admission of the quantity of silt according to the carrying capacity of the offtaking canals are the principal aims of all sediment control measures.

0.3 Sediment exclusion in the case of a main canal offtaking from a river slightly differs from that in a distributory head offtaking from a canal. In the former complete sediment exclusion can be aimed at as the river can dispose of its silt by passing it down into the sea. In a distributory, on the other hand, it is the proportionate distribution of sediment according to the silt carrying capacity of the canal which should be achieved as the canal cannot dispose of any excess silt.

0.4 This standard is based on some of the structures constructed in Lower Jhelum Canal Distributory (now in Pakistan). Data from hydraulic model studies and similar prototype structures constructed in India may be collected and sent to ISI to enable the Institution to improve and review the standard.