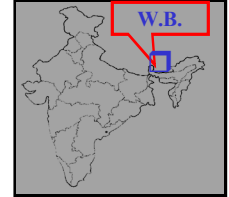


TEESTA LOW DAM SPILLWAY, STAGE – IV, WEST BENGAL



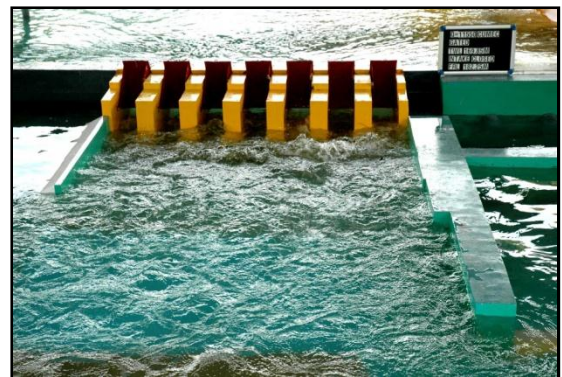
SALIENT FEATURES

Location	: Dist. Darjeeling, West Bengal
River	: Teesta
Power Generation	: 160 MW (40 x 4)
Maximum Discharge	: 15,400 m ³ /s
Type of dam	: Concrete Gravity / RCC
Spillway	: 7 Spans of size 11 m (W) x 17 m (H) with breast wall
Energy dissipator	: Stilling Basin

MAJOR STUDIES

1: 45 scale 2-D sectional model and 1: 70 scale 3-D comprehensive model

- ❖ Performance of the solid roller bucket as energy dissipator (Original design)
- ❖ Approach flow conditions upstream of spillway and power intake
- ❖ Assessment of discharging capacity, pressures and water profiles on spillway
- ❖ Performance of spillway and energy dissipator (different alternatives)
- ❖ Flow conditions in the vicinity of power intakes and in the tail race channel.



RESULTS / BENEFITS

- ☐ Performance of the solid roller bucket was not satisfactory and hence the energy dissipator has been modified to stilling basin
- ☐ Performance of stilling basin is found to be satisfactory
- ☐ The discharging capacity of the spillway is adequate
- ☐ Approach flow conditions in the vicinity of spillway and power intake are satisfactory
- ☐ Raising the centre line of the power intake by 1.0 m was recommended