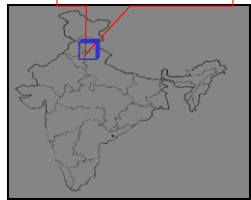




अनुसंधान के माध्यम से सेवा
Service Through Research

DEVSARI H.E. PROJECT, UTTARAKHAND.

UTTARAKHAND



SALIENT FEATURES

Location	: Chamoli District
River	: Pinder
Power Generation	: 252 MW (84 x 3)
Maximum Discharge	: 6,969 m ³ /sec
Type of dam	: Concrete Gravity Dam
Height of dam	: 65 m
Spillway	: Sluice spillway of 5 Spans of size 8.5 m (W) x 12.5 m (H)
Energy dissipator	: Ski jump Bucket

PROPOSED STUDIES

1:60 scale 3-D comprehensive model

- ☺ Approach flow conditions upstream of spillway and power intake
- ☺ Assessment of discharging capacity of sluice and auxilliary spillway
- ☺ Water surface and Pressure profiles on sluice spillway
- ☺ Performance of energy dissipation arrangement
- ☺ Pressures and water profiles on sluice spillway



RESULTS

- ❖ Discharging capacity of the spillway is found to be adequate as PMF of 6969 m³/s can be passed at RWL El. 1292.80 m, whereas maximum discharge of 9000 m³/s and 9200 cumec can be passed at FRL and at MWL respectively.
- ❖ Recommended to raise the elevation of trunnion axis to avoid its submergence.
- ❖ The performance of ski-jump bucket is found to be unsatisfactory for the entire range of discharges
- ❖ Recommended stilling basin as energy dissipator and shifting of auxilliary spillway to centre of spillway
- ❖ Recommended to explore the possibility of shifting auxilliary spillway over the central span of main spillway
- ❖ Flow conditions were satisfactory in the vicinity of power intake