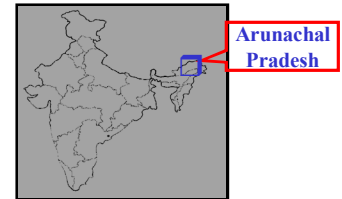




PARE DAM SPILLWAY, ARUNACHAL PRADESH



SALIENT FEATURES

Location	: Jampa, Papumpare, A.P
River	: Dikrong/ Pare
Power Generation	: 110 MW
Maximum Discharge	: 5000 m ³ /s
Type of Dam	: Concrete gravity
Height of Dam	: 78 m
Spillway	: Breast Wall spillway with 3 Spans 10.4 m (W) x 14 m (H)
Energy Dissipator	: Ski-jump bucket

3-D COMPREHENSIVE MODEL STUDIES

- ~ Discharging capacity of breast wall spillway with full as well as with partial opening of gates
- ~ Pressure distribution over the spillway bottom profile and breast wall bottom profile
- ~ Water surface profiles for entire range of discharges
- ~ The performance of energy dissipation arrangement
- ~ Flow conditions downstream of spillway
- ~ Approach flow conditions in the vicinity of power intake

BENEFITS OF STUDY

- * The discharging capacity was found to be adequate as the design discharge of 5000 m³/s can be passed at RWL El. 235.65 m and at MWL El. 246.215 with all the three spans open and under one gate inoperative respectively
- * Performance of the revised design of ski-jump bucket with pre-formed plunge pool was satisfactory
- * Scour studies revealed that the scour profiles for most of the discharges would be contained in the proposed preformed plunge pool downstream of the spillway except scour profiles near the downstream slope of the proposed preformed plunge pool
- * The size of the plunge pool proposed is 49.2 m (W) x 30 m (L) with bottom El. 180 m and longitudinal slopes for u/s and d/s of plunge pool may be kept at 2° and 18° respectively



Flow condition downstream of spillway