

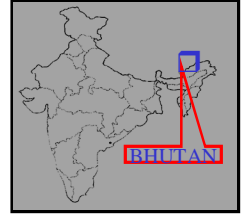


अनुसंधान के माध्यम से सेवा
Service Through Research

CENTRAL WATER AND POWER RESEARCH STATION

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KURICHU DAM SPILLWAY, BHUTAN



SALIENT FEATURES

Location	: Mongar District , Bhutan
River	: Kurichu
Power Generation	: 60 MW
Maximum Discharge	: 12200 m ³ /s
Type of dam	: Concrete Gravity Dam Height 55 m
Spillway	: 5 Spans of 10.5 m wide separated by 7 m thick piers
Radial Gates	: 14 m (H) 10.5 m (w)
Energy dissipator	: Stilling Basin

MAJOR STUDIES

Comprehensive model scale 1: 50

- ☺ Approach flow conditions upstream of spillway and power intake
- ☺ Assessment of discharging capacity & pressures on breast wall spillway
- ☺ Performance of stilling Basin
- ☺ Layout of Power House Tail Race Channel



BENEFITS

Finalised Design of Spillway and Power Intake

- 📄 Number of intakes recommended 2 instead of 4
- 📄 Optimised design of stilling basin from the considerations of dissipation of energy and flushing of silt
- 📄 Five alternative layouts of tail race channel wall studied & finalised considering water level fluctuations, return velocities and silt deposition