

1 Nuclear test

- May 1974 "smiling buddha" yield 12kt(TNT)
- May 1998, 5 devices , Shakti01 and Shakti-2, 45KT (major device o)

2 Apsara

2.1 Old Apsara

- French make 1MWt HEU Reactor First critical-1956
- Fuel
- reactor type : Pool

2.2 New Apsara-U

first criticality - sept 2018

Power 2 Mwt(Thermal)

Fuel: U₂Si₃-Al, dispersion type fuel with Low Enrichment Uranium LEU, (17 wt.%) U²³⁵

Reactor type: Pool

Reflector:Beryllium Oxide

Coolant and Moderator: DM Water

Shutdown System: Hafnium shut-off-rods

cooling method: Forced convection (operation), Natural Convection (Shutdown condition)