SALIENT FEATURES OF BALIMELA DAM (JOINT) PROJECT: CHITRAKONDA::DIST: MALKANGIRI (ODISHA)

Name of Dam	:	Balimela Dam (Joint) Project At -Chitrakonda, Pin- 764052.

GENERAL

I.	Location	:	State : Odisha, Dist. Malkangiri 4 Kms. away from Andhra Pradesh and Odisha State Boarder. Latitude:- 18-8'-25" N Longitude:- 82-7'-22"
II.	Purpose	:	Multipurpose river valley scheme Mainly intended for Hydro Electric Power Generation.
III.	River	:	Machkund – Sileru Main Basin : Godavari. Sub-Basin : Sabari.
IV.	Area catchment	:	4910 Sq.Km of which, 2224 Sq.Km Is intercepted.
V.	Nature of catchment	:	Hilly with dense vegetation (average)
	Rain – fall	:	32.34 mm 54.46mm 70.69 mm 63.50 mm
	Snow	:	Nil

VI. Total annual yield of Catchment:-

1.	Observed Max. discharge	:	5400 m/sec (5400 cumecs)
2.	Minimum including regulated releases from Machkund.	:	54 m / sec (1900 cusecs)
VII.	Design flood discharge	:	14,300 m /Sec (505000 cumecs)
	Routed flood discharge	:	10930 m /Sec.(386000 cumecs)
VIII.	Year of commencement of Construction	:	1962
IX.	Year of completion	:	1977
X.	Total cost	:	Rs. 53 Crores (Net)

DAM

1.	Type	:	Earth-fill - Gravity type.
2.	Width of top	:	9.15 m (30 ft.)
3.	Width at button	:	482.16 m (1582 ft.)
4.	Bed Rock	:	" KHONDALITE"
5.	Height :-		
a)	Maximum height above the lowest point of foundation.	:	70 m (230 ft.)

b)	Height above the lowest river bed at Dam :-	:	70 m (230 ft.)
c)	Height of the top of the Dam above the crest of the Spillway.	:	16.46 m (54 ft.)
d)	Length at the top of the Dam	:	1821 m (5975 ft.)
	Non-over flow		
i.	Main	:	Spill-way is separate from Main Dam.
ii.	Subsidary	:	
iii.	Spillway.	:	Over-flow Section. : 152.40 m (500 ft.) Non-overflow section:- 110.00 m (361 ft.)
XII.	Total volume content :-		
1.	Masonary and concrete	:	96750 Cubic meter
2.	Earth	:	19000000 Cubic meter
XIII.	**RESERVOIR :-**		
1.	T.B.L.	:	466.34 m (1530 ft.)

2.	M.W.L.	:	462.69 m (1518 ft.)
3.	Area at M.W.L.	:	1712 ha (43 274 Acres)
4.	F.R.L.	:	462.08 m (1516 ft.)
5.	Area at F.R.L.	:	16908 ha (41782 Acres)
6.	Area at MDDL 438.91 m (1440 ft)	:	6689 ha (16529 Acres)
7.	Maximum length	:	50 KM
8.	Maximum width	:	8 KM
9.	Length of periphery	:	360 KM.
10.	Gross Storage capacity at MWL 462.69 m(1518.00 ft.)	:	3695 M.Cum. (130500 Mcft.)
11.	Gross storage capacity at F.R.L. 462.08 m (1516.00 ft.)	:	3610 M. Cum. (127500 Mcft.)
12.	Gross storage capacity at MDDL 438.91 (1440.00 ft.) (Normal Pool)	:	935.00 M.Cum. (33000 Mcft.)

13.	Gross storage capacity at MDDL 435.86 M. (1430.00 ft.)	:	751 M.Cum. (26500 Mcft.)
14.	Effective Storage Capacity between Rl. 1516 to 1440 ft.	:	22676 M. Cum. (94500 Mcft.)
15.	Effective Storage between RL 1516 to 1430 ft.	:	2860 M.Cum. (101000 M.Cum.)
16.	Available draw-down 435.86 M (1430 ft.)	:	2860 M.Cum. (101000 Mcft.)

XIV. **SPILLWAY**

1.	Type	:	Straight gravity masonary (OGEE Type)
2.	Type and number & gates	:	Radial crest gates of Steel - 10 Nos.
3.	Size of each radial gate	:	12.19 M X 12.19 M (40' X 40') each.
4.	Crest level of Spillway (OGEE top)	:	449.88 m (1476 ft.)
5.	Top level of crest gates	:	462.08 m (1516 ft.)
6.	Total length of spill-way		

	(including non over flow section).	:	262.40 m. (861 ft.)
7.	Means of operation of Crest gates.	:	Electrically Operated.
8.	Number and size of Sluice Gates.	:	2 Nos. 2.44 m x 3.66 m ht. each (8' - 0 x 12' - 0")
9.	Situation of Sluices	;	Left flank
10.	Sill of Spillway sluices	:	432.61 m (1419 ftt.)
11.	Date of erection of Spillway crest gates.	:	August - 1977
12.	Maximum discharge capacity of Spillway.	:	10930 m/second (386000 cusecs)
13.	Maximum discharge Capacity of spillway sluices.	:	227 cumecs (8000 cusecs)
14.	Top of Spillway Dam	;	466.34 mt. (1530.00 Ft.)