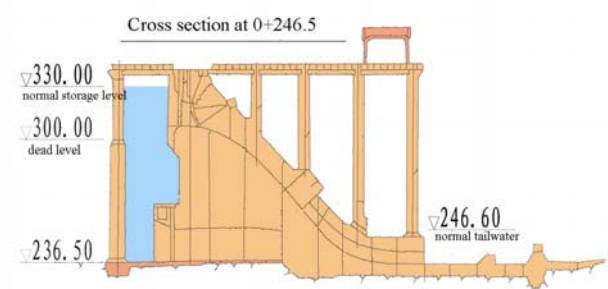
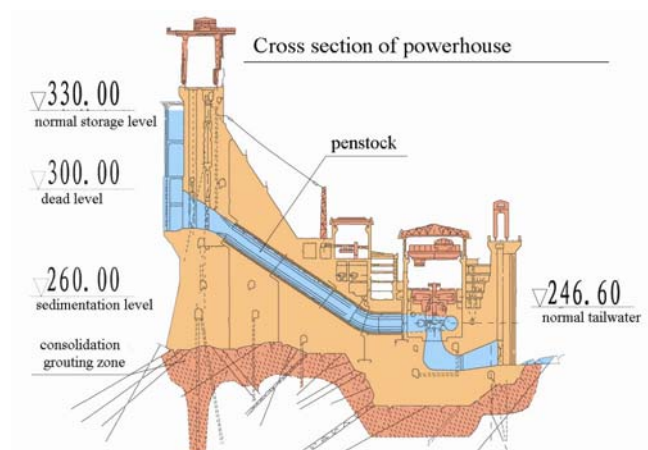
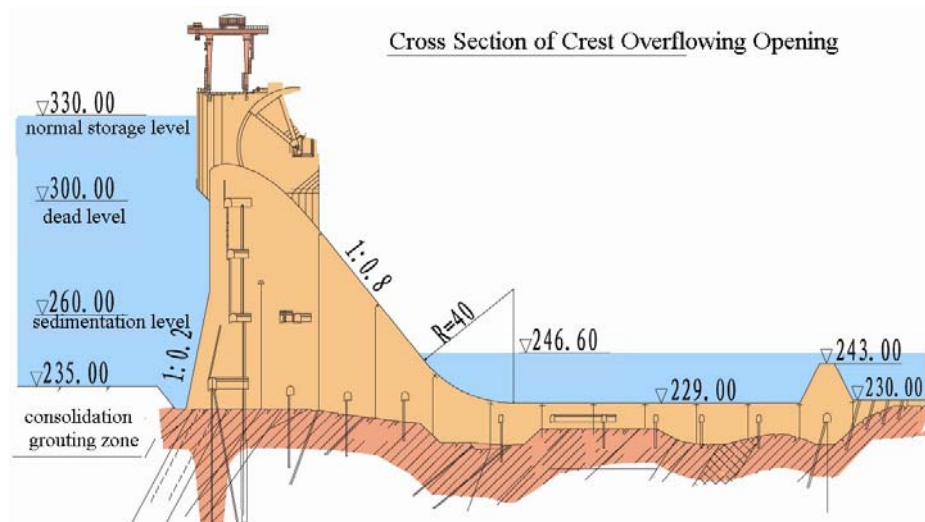


Ankang Hydropower Project



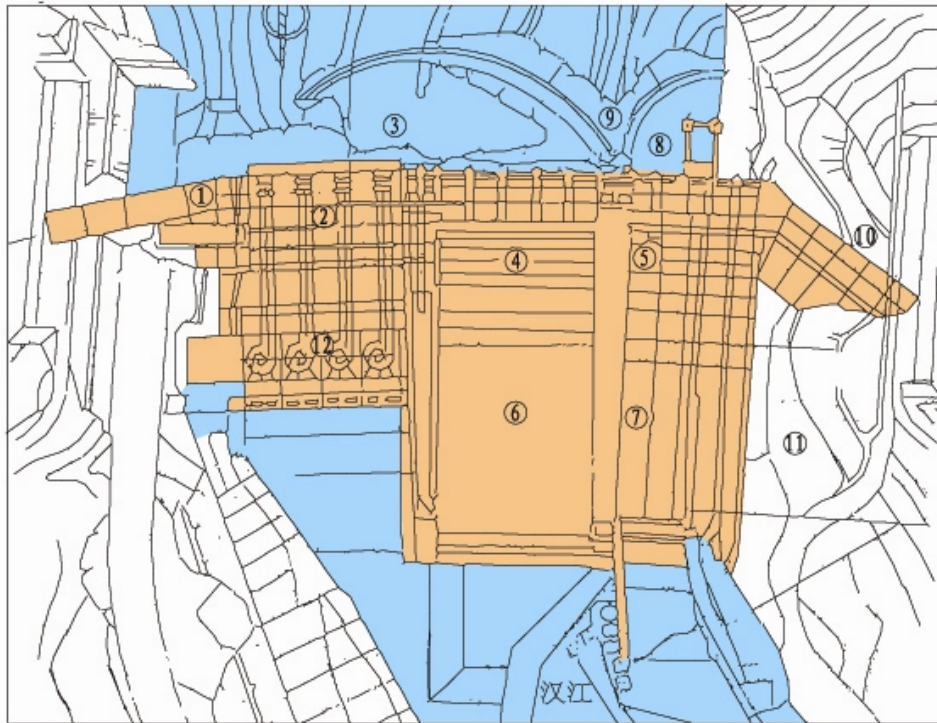
The Ankang Hydropower Project is a multi-purpose project, serving mainly for power production and concurrently for flood control, navigation, irrigation, tourist, etc. The dam is a zigzag line solid gravity dam, and the outlet works are composed of 5 crest overflowing spillways, 5 mid-discharge openings and 4 bottom-discharge openings. The reservoir storage is $2580 \times 10^6 \text{m}^3$ at the normal water level, 330m. The power house is placed at dam toe in the right side of the river and houses 4 sets of units with 200 MW each, having a total installed capacity of 800 MW. Vertical ship lift equipment with a max capacity of 100 t is used for navigation and arranged on the mid-discharge opening block of the dam in the left side of the river.

The Station is designed by Beijing Hydroelectric Investigation and Design and Research Institute, and No.3 Bureau of Hydropower Construction undertook its construction.

Main Features

Item	unit	quantity	Item	unit	quantity
I. Hydrology			16. Crest elevation of dam	m	338
1. Catchment area above the dam site	km ³	35700	17. Max. dam height	m	128
2. Mean annual runoff	10 ⁶ m ³	19200	18. Crest length of dam	m	541.5
3. Mean annual flow	m ³ /s	608	19. Elevation of crest overflowing opening	m	313
4. Design flood flow (p=0.2%)	m ³ /s	36700	20. Opening number - size	number-m×m	5-15×17
5. Check flood flow(p=0.02%)	m ³ /s	45000	21. Opening number – size for mid-discharge opening	number-m×m	5-11×12
6. Mean annual sediment transport	10 ⁶ t	27	22. Floor elevation of bottom-discharge opening	m	265
II. Reservoir			23. Opening number – size	number-m×m	4-5×8
7. Design flood level	m	325	V. Waterway		
8. Check flood level	m	333.1	24. Type	Embedded pipe	
9. Normal storage level	m	330	25. Diameter of pipe	m	7.5
10. Gross storage	10 ⁶ m ³	2580	26. Max. available flow	m ³ /s	350
11. Regulation performance	yearly completely		27. Intake sill elevation	m	282
III. Energy Index			VI. Powerhouse		
12. Installed capacity	MW	800	At dam toe		
13. Firm output (p=90%)	MW	175	28. Size of main hall	m	132.55×22.9×52.9
14. Annual power generation	GWh	2800	29. Max. head	m	88
IV. Water retaining structure			30. Min. head	m	50
15. Type	Concrete gravity dam		31. Design head	m ³ /s	76.2

Layout Plan for Ankang Hydropower Station



- ① Non-overflow section ② Powerhouse section ③ Bottom outlet ④ Crest opening section ⑤ Stiller
⑥ Bottom outlet ⑦ Stiller ⑧ Ship-lift ⑨ Bottom outlet ⑩ Non-overflow section
⑪ Side spillway ⑫ Main hall