

Dam: Longtan (Stage 1)

Country: China

River: Hongshui

25°01'41.99"N 107°02'36.40"E

25.028332 107.043442

Owner/Client: Longtan Hydropower Development Co. Ltd.

Designer/Engineer: Mid-South Design Institute for Hydroelectric Projects, MOE & MWR

Contractor: JV of 7th, 8th and Gezhouba Construction Bureaux (Right Bank) and Jiangnan Co. Ltd. (Left Bank)

Purpose (code): F H N W

Site start: 01.07.2001

RCC start: 08.10.2004

RCC completion: 20.06.2007

Site completion: 30.12.2009

Height (m): 192

Length (m): 832

Volume of RCC (m<sup>3</sup>x10<sup>3</sup>): 4623

Total volume (m<sup>3</sup>x10<sup>3</sup>): 7400

Reservoir capacity (m<sup>3</sup>x10<sup>6</sup>): 16210

Upstream slope: V  
0.25

Forming of upstream face (code): (3')

Downstream slope: 0.70

Forming of downstream face (code): (3')

Spillway slope: 0.68

Forming of spillway face (code): (12)

Depth of layers (mm): 300

Depth of lifts (mm): 300

Cement content (kg/m<sup>3</sup>): 99  
86

Pozzolan content (kg/m<sup>3</sup>): 121  
109

Code for pozzolan: (F)

RCCDAM Unique Serial No.: RCCDAM0411

## Under Construction



RCCDAM0411UC

## Completed Dam



RCCDAM0411CD

## Google Earth



RCCDAM0411GE

# Guide to Abbreviations

## Purpose

- E Environmental
- F Flood control
- G Groundwater recharge
- H Flood control
- I Irrigation
- N Navigation
- P Pollution control
- R Recreation
- W Water supply

## Facing method

- (1) Traditional concrete against formwork
- (2) Traditional concrete against formwork with external geomembrane
- (3) RCC against formwork
- (4) RCC against formwork with external geomembrane
- (5) Traditional concrete against precast concrete panels
- (6) Traditional concrete against precast concrete panels with geomembrane
- (7) RCC against precast concrete panels
- (8) RCC against precast concrete panels with geomembrane
- (9) RCC against precast concrete panels with hot poured membrane
- (10) RCC against precast concrete blocks
- (11) Reinforced conventional concrete cast before RCC placement
- (12) Reinforced conventional concrete cast after RCC placement
- (13) Reinforced concrete cast against precast units or slip-formed facing elements
- (14) Slip-formed/extruded facing elements
- (15) RCC supported by fill shoulders
- (16) Mechanically compacted unformed face of RCC
- (17) Unformed face of RCC
  - ' GEVR/GE-RCC
  - \* Stepped face

## Pozzolans

- (-) No Pozzolan Used
- (C) High-lime flyash (ASTM Class C)
- (F) Low-lime flyash (ASTM Class F)
- (M) Milled sand
- (N) Natural pozzolan (ASTM Class N)
- (R) ROLAC (mixture of flyash and slag with or without limestone fines)
- (S) Ground-granulated blast-furnace slag
- (L) Mixture of GGBFS and limestone fines