

Dam: Peñas Blancas

Country Costa Rica

River Peñas Blancas

10°22'0.20"N 84°36'18.91"W

10.366722 -84.605255

Owner/Client ICE (Instituto Costarricense de Electricidad)

Designer/Engineer ICE (Ing. William Porras)

Contractor ICE (Ing. Irene Zúñiga)

Purpose (code) H

Site start 20.04.2000

RCC start 26.07.2001

RCC completion 21.01.2002

Site completion 16.07.2002

Height (m) 48

Length (m) 211

Volume of RCC ( $m^3 \times 10^3$ ) 120

Total volume ( $m^3 \times 10^3$ ) 170

Reservoir capacity ( $m^3 \times 10^6$ ) 2

Upstream slope V

Forming of upstream face (code) (1)

Downstream slope 0.80

Forming of downstream face (code) (1) \*

Spillway slope 0.80

Forming of spillway face (code) (12)

Depth of layers (mm) 300

Depth of lifts (mm) 300

Cement content ( $kg/m^3$ ) 90

Pozzolan content ( $kg/m^3$ ) 35

Code for pozzolan (N)

RCCDAM Unique Serial No. RCCDAM0269

## Completed Dam



RCCDAM0269CD

## Google Earth



RCCDAM0269GE

# 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