

Dam: Maroño

Country Spain

River Izoria and Idas

43°2'53.35"N 3°3'19.55"W

43.048153 -3.055431

Owner/Client Diputación Foral de Alava

Designer/Engineer AEPO

Contractor Dragados y Construcciones S.A.

Purpose (code) W

Site start 01.01.1989

RCC start 20.11.1989

RCC completion 31.08.1990

Site completion 30.11.1991

Height (m) 53

Length (m) 182

Volume of RCC (m<sup>3</sup>x10<sup>3</sup>) 80

Total volume (m<sup>3</sup>x10<sup>3</sup>) 91

Reservoir capacity (m<sup>3</sup>x10<sup>6</sup>) 2

Upstream slope 0.05

Forming of upstream face (code) (3)

Downstream slope V  
0.75

Forming of downstream face (code) (3) \*  
(3) \*

Spillway slope 0.75

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

Depth of layers (mm) 300

Depth of lifts (mm) 300

Cement content (kg/m<sup>3</sup>) 80  
65

Pozzolan content (kg/m<sup>3</sup>) 160  
170

Code for pozzolan (F)

RCCDAM Unique Serial No. RCCDAM0069

## Under Construction



RCCDAM0069UC

## Completed Dam



RCCDAM0069CD

## Google Earth



RCCDAM0069GE

# 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