

Dam: Urdalur

Country Spain

River Alzania

42°55'1.55"N 2°14'1.26"W

42.917095 -2.233683

Owner/Client Confederación Hidrográfica del Ebro

Designer/Engineer PROSER

Contractor OCISA (Obras y Construcciones Industriales S.A.) - now ACS Dragados

Purpose (code) W

Site start 01.03.1990

RCC start 01.08.1991

RCC completion 31.07.1992

Site completion 31.10.1992

Height (m) 58

Length (m) 396

Volume of RCC ( $m^3 \times 10^3$ ) 150

Total volume ( $m^3 \times 10^3$ ) 240

Reservoir capacity ( $m^3 \times 10^6$ ) 5

Upstream slope V

Forming of upstream face (code) (1)

Downstream slope 0.75

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

Spillway slope 0.75

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

Depth of layers (mm) 300

Depth of lifts (mm) 300

Cement content ( $kg/m^3$ ) 72

Pozzolan content ( $kg/m^3$ ) 108

Code for pozzolan (F)

RCCDAM Unique Serial No. RCCDAM0099

## Under Construction



RCCDAM0099UC

## Completed Dam



RCCDAM0099CD

## Google Earth



RCCDAM0099GE

# 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