

Construction of three RCC dams forming part of the Ghatghar Pumped Storage Project in India

V.C.SHELKE, Government of Maharashtra Water Resources Department

M.R.H.DUNSTAN, Malcolm Dunstan & Associates

J.L.HINKS, Halcrow Group Ltd.

T.ZELENKA, Halcrow Group Ltd.

SYNOPSIS

The 250-MW Ghatghar Pumped Storage Scheme, now nearing completion near Mumbai in India, has three roller-compacted concrete (RCC) dams forming the Upper and Lower reservoirs. The level difference between the two reservoirs is 410 m. The two dams forming the Upper reservoir were constructed first and were useful precursors to the 84-m high dam impounding the Lower reservoir.

The Lower dam was built over two seasons with a halt for the 2005 monsoon when there is heavy rain – 640 mm fell at the site in eight hours on 28 June 2005; on the same day 940 mm fell in Mumbai – in total 7,200 mm rain fell in just over four months during the monsoon.

This paper describes the construction of the dams and also the thermal analyses used to choose the optimum placing temperatures.