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PROCEEDINGS OF THE FIFTH INTERNATIONAL SYMPOSIUM ON ROLLER COMPACTED CONCRETE (RCC) DAMS, 2-4 NOVEMBER 2007, GUIYANG, CHINA

# New Progress on Roller Compacted Concrete Dams

### Edited by

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# Preface

From the first experiences of RCC dams began in Oct. 1978, there has been a high speed development of RCC technology applied in dam construction throughout the world for the important advantages of being more economical and more efficient. At the end of 2006, there were over 380 large (H>15 m) RCC dams either completed or under construction all over the World. A significant proportion of these dams are in Asia, in particular in China. The first RCC dam over 200 m in height (Longtan in China) is about to be completed, followed by another two or three of the similar height recently. We now boast enough confidence in well-designed RCC dams of 200 m high.

The 5th International Symposium on Roller Compacted Concrete Dams is jointly sponsored by the Chinese National Committee on Large Dams (CHINCOLD) and the Spanish National Committee on Large Dams (SPANCOLD) together with other related organizations. The previous ones were held respectively in Beijing (China) in 1991, Santander (Spain) in 1995, Chengdu (China) in 1999 and Madrid (Spain) in 2003, which were all successful and fruitful. China and Spain, two pioneering and leading countries in RCC dams, have made great efforts to prepare this meeting with the biggest ambitions, both in contents and international scope. This book intends to provide a comprehensive review of the state-of-art of the design and construction of RCC dams to celebrate the 30 years anniversary of the application of RCC technology in dams. Milestone projects in the world will be recommended during the symposium in order to present the joint achievement of Engineers from different countries during the past 30 years.

This book is the proceeding of the 5th International Symposium on Roller Compacted Concrete Dams, held in Guizhou (China) from 2nd to 4th of November, 2007. 127 papers from 19 countries are compiled here. They are the description and analysis of the design, construction, operation and performance of RCC dams in different countries. The innovative methods and techniques in the design and construction of RCC dams as well as the development of CSG and other RCC applications in hydraulic structures are also presented in this book.

The works are categorized according to the following six topics:

- 1. New trends.
- 2. Planning and design.
- 3. Materials.
- 4. Numerical analysis.
- 5. Construction, operation and performance.
- 6. Development of CSG and other RCC applications.

Finally, we would like to express our acknowledgements to the organizers and sponsors of this symposium. Our sincere appreciation also goes to the authors of all the papers published here. Their diligent and fruitful work is a great contribution to the development and innovation of the concepts and technologies of RCC dams, which is indispensable for the improvement of the application of RCC dams and for achieving an adequate balance between safety, economy and environmental protection.

Jia Jinsheng Luis Berga Zhang Guoxin Chen Gaixin Zheng Cuiying



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