



CFRD INTERNATIONAL SOCIETY

HEADOFFICE: 4301 E.VALLEY BLVD #D2 LOS ANGELES, CA. 90032 USA
Tel: 323-9088-554 Fax: 323-227-8581 Number: C3043477 Jurisdiction: California
SECRETARIAT: 41-210 ZHENGPING ROAD, YICHANG 443002 P.R. CHINA
Tel/Fax:(86)717-6721379(86)13872558634 Email:ywhs@msn.com,yssdchen@msn.com

NO. Filed(DC)019

Charrette on Key Technology for High CFRD Construction & Celebrating the Foundation of CFRD Int. Society

Nov. 30~Dec.3, 2008
Hong Kong, China

Sponsored By:



CFRD Int. Society

MAIN PROGRAMS

1. Pass the CFRD International Society STATUTES
2. Finalize the Guidance for High Concrete Face Rockfill Dam (draft)
3. Charrette
4. Technical study tours
5. Appraisal on quality products and selection of CFRD experts with outstanding contribution

The guidance will be published both in English and in Chinese and distributed around the world so as to be more convenient for sharing the technologies and experiences of the world CFRD constructions without a hitch in the future.

The concrete face rockfill dam (CFRD) has been constructed widely all over the world now for its stability, taking full advantage of local constructional materials at the dam site and constructed simply, and economically, and best adaptability to geology and topography, operation safely and easy remedy.

CFRDs >100m are 200 or so spreading around the world ; the extra (or very) high CFRDs (>150m) are more than 20 built or underway such as Shuibuya (233m, China), Jiangpinghe (221m , China), La Yesca (210m, Mexico), Bakun (205m , Malaysia), Campos Novos (202m , Brazil), Guxian (199m, China), Kárahnjúkar (196m, Iceland), El Cajon (189m, Mexico), Aguamilpa (187m, Mexico), Sanbanxi (186m, China), Barra Grande (185m, Brazil), Mazar (185m, Ecuador), Hongjiadu (179.5m, China), Tianshengqiao I (178m, China), Tankeng (162m, China) and Areia (160 m, Brazil), Zipingpu (158m, China), Bashan (155m, China), Jilingtai (152m, China), etc.

Cracks and ruptures at face slabs and high leakages currently recorded at some high CFRDs in the world shown that different factors have been affected CFRD behavior.

However such ruptures or cracklings at face slabs of a CFRD shall never impact its stability and safety. Many extra high CFRDs have been performing satisfactorily after being remedied such as Tianshengqiao I CFRD, China, Xingó (Brazil), Aguamilpa (Mexico), Barra Grande (Brazil), Campos Novos, (Brazil).....

Zipingpu CFRD even having been impacted by the magnitude 8.0 earthquake, which is only about 17km away from the epicenter of Sichuan Earthquake 5.2, is, under remedy, now performing quite well

Nevertheless we must pay great attention to these problems since the CFRD construction has entered into very high construction stage, more or larger cracks may increase amount of leakage from reservoirs, wasting water resources for generating power, etc. We ought to resolve these problems in CFRD design and construction.

We have accumulated matured design principle and construction idea for middle high and low CFRD construction in the past 30 years or more since the world modern CFRD construction began. However the design principle and construction idea for very high CFRDs can not be simply extrapolated or extended from those for low or middle ones in height. This is why the above mentioned face slabs were ruptured or cracked

CFRD INTERNATIONAL SOCIETY hereby organized CFRD experts from China, Brazil, USA, Canada, Switzerland, Iceland, Chile and Bulgaria etc for comprehensive summing up the experiences of constructions of world concrete face rockfill dam (CFRD) and studied the technical problems occurred recent years in the constructions of world high or very high CFRDs, and presented the effective measures for overcoming them in May 2007 so as to meet the requirements for development of the world high CFRDs. It is hereby to formulate this draft for High Concrete Face Rockfill Dam Design Construction Code . The purpose of this Code is to provide guidance for the world CFRD builders to construct high CFRDs successfully and perfect the construction of this type of modern dams.

The main contents of this Code include the basic stipulations and requirements for layouts of high and very high CFRDs and their related outlet and draining structures; detailed zonings of dam body rockfills or gravel materials; property of dam filling materials and filling quality standards; dam body design and calculation; excavation and treatment of dam foundation and bank slopes ; design of concrete plinth, face slab and connecting plate; design of joint water stops for all types of joints such as perimeter joints and vertical joints; construction in stages and raising of built CFRDs and arrangement design of prototype observations, etc.

CONTENTS

1. Introduction

2. Terms and Symbols
3. Dam Layout and zoning of CFRD Body
4. Filling Materials and Their Criteria for CFRDs
5. Design of CFRD Body
6. Treatment on CFRD Foundations
7. Concrete Plinth
8. Concrete Face Slab
9. Extruded Curb
10. Joint Seal
11. Connecting Plate
12. Face Slab Separation
13. Stage Construction
14. Raise of Built CFRDs
15. Rehabilitation of Ruptured Face Slab
16. Prototype Observations
17. Design Proposals for 300m High CFRDs

Sponsor:

CFRD INTERNATIONAL SOCIETY

Cosponsor:

Laodukou Hydropower Development Co. China
SINOPOWER ENGINEERING BUREAU 3

Any organization may be a cosponsor, such as designer, constructor, contractor, supervisor, university, owner, manufacturers and instrument and meter plants, etc for CFRD construction.

Such a CFRD expert can be a composer of the Guidance, who has once taken part in or now is joining in the overall process of design, construction, supervision, operation or management, manufacture or fabrication or installation equipments for one or more high or very high CFRD.

The deadline for applying for cosponsor or composer by Sept. 20, 2008.

Composer fee is USD \$500 (i.e. conference registration fee)

The guidance can be subscribed at \$ 45 / copy; \$300 / 10 copies; 170 \$ / 5 copies (including postage). Subscribe now.

a. Finalizers:

| | |
|-------------------|--------|
| Bayardo Materon | Brazil |
| Cao Keming | China |
| Humberto.Marengo | Mexico |
| Paulo Cruz | Brazil |
| Alberto Escueiro | Italy |
| Palmi Johannesson | USA |

b. Drafters:

| | |
|---------------|-------|
| Yang Xiaoming | China |
|---------------|-------|

| | |
|----------------------|----------|
| Manoel S. Freitas Jr | Brazil |
| Tan Yung. Leong | Malaysia |
| Ren Shangqing | China |
| Chen Qian | China |

c. Composers:

| | |
|-----------------|---------|
| Fernando Saboya | Brazil |
| Yuan Hui | China |
| Chen Wen Yao | China |
| Siba Prasad Sen | India |
| S. C. Mittal | India |
| S. Mohsen Haeri | Iran |
| M.R. Kavianpour | Iran |
| James O Akanmu | Nigeria |
| Xingzheng Wu | UK |

MAIN THEMES of CONFERENCE

1. Application of extruded curb technology in high CFRD construction
 - a. case study
 - b. application experience
 - c. improving design, construction and extruder
2. Measures to eliminate cracks at face slabs of high CFRDs
 - a. design technology
 - b. construction technique
 - c. additive application
 - d. construction equipment improvement
3. Discussion on key technologies for extra high CFRD construction
 - a. design technology
 - b. construction technique
 - c. performance and management
 - d. materials, equipments and additive improvement (especially in compaction equipment and layer thickness)
 - e. scientific research and analog computation
 - f. instrumentation and experimental findings
4. Case study on 300m high CFRD construction
 - a. design technology
 - b. construction technique
 - c. performance and management
 - d. materials, equipments and additive improvement
 - e. scientific research and analog computation
 - f. instrumentation and experimental findings

VENUE

Hong Kong Royal View Hotel

LANGUAGE

The working language of the Charrette is English.

PAPER SUBMISSION

Papers addressing the Charrette themes are solicited and encouraged to be presented. The completed paper in English should be submitted to the Secretariat before Sept. 30, 2008 by emails: yssdchen@msn.com, ywhs@msn.com .

The paper must be included with the affiliation, mailing address of the first author, fax number and e-mail address and the first author's photo, together with his short CV for publication. . .

EXHIBITION

Shown with computer in the intervals shortly after or before a session during the charrette Nov. HK 2008, only arranged by the Charrette Secretariat. The technical literature shown will be published shortly after the guidance in 《CFRD WORLD》ISSN **1997-9185** for one year. All info should be related to and quality products for CFRD constructions or excellent CFRD experts as follow:

1. The new or update technologies, materials, equipments and special skills
2. CFRD expert shown Any CFRD expert from your company
- 3 corporate image (designer, contractor, constructor, supervisor, researcher)

Apply for the exhibition before Sept. 30, 2008.

APPRAISAL ON QUALITY PRODUCTS

The products and technologies shown can apply for appraisal by CFRD Int Society and a writing appraisal will be issued by the society. The quality products of them will be published in 《CFRD WORLD》 for one year free of charge.

The deadline is Sept.30, 2008 for applying for this Appraisal on quality products.

SELECTION of CFRD experts with outstanding contribution

CFRD experts with outstanding contribution will be selected from more than 30 years by 2008 and certificates of honor issued to them so as to honor their contributions to the world CFRD constructions...

The deadline is Sept.30, 2008 for applying for this SELECTION of CFRD experts with outstanding contribution.

REGISTRATION

The Registration Form is enclosed in this bulletin, which should be completed and returned to the Secretariat by Sept 30, 2008. Please be notified that registration and exhibition can only become effective upon receiving both the Registration Form with correct payment.

Registration: Nov. 30, 2008

REGISTRATION FEE (in US\$)

| Date registered | Sept. 30, 2008 | Nov. 30, 2008 |
|----------------------------------|----------------|---------------|
| Participant | 500 | 550 |
| Student | 50 | 70 |
| Exhibition (1. 2. 3.) with ✓ | 8min | 10min |

| | | |
|------------------------------|-----|-----|
| Pay charges for 1. 3. | 400 | 500 |
| Pay charges for 2. | 250 | 350 |

BANK ACCOUNT DETAILS:

BANK OF CHINA

SAN XIA BRANCH GE ZHOU BA SUBBRANCH

GE ZHOU BA PARTMANAGE PLACE SAVE SHOPPE

Chen Qian

4641405-0188-003394-1

Code: BKCHCNBJ600

Be sure not to omit Chen Qian in the account.

BOARD AND LODGING EXPENSES (four star hotel)

Nov.30 ~ Dec. 3 -----USD120 / night (including food, coffee and beverage at conference),
directly paid to the receiver of the hotel when registering.

STUDY TOURS

(Including all board and lodging expenses, directly charged by the travel agency)

Dec. 4~5, a 2- day Hong Kong study tour of at USD 270 /person

Dec. 6, a 1- day Macao study tour at USD 160 /person

Advisory Committee

Paulo Cruz Prof. Brazil Vice president of CFRD Int. Society

Ren Shangqing Consultant of CFRD Int. Society, former Chief Engineer of
China Gezhouba Group Corporation

Markus Aufleger Prof. Head of Institute University Innsbruck – Hydraulic
Engineering, Austria

Pedricto Rocha Filho Professor Pontifical Catholic University of Rio de Janeiro
Brazil

Dr. K. Shadananan Nair Executive Secretary & Director of Research
Centre for Earth Research & Environment Management India

S. Mohsen Haeri Professor Head, Geotechnical Engineering Studies and
Research Center Sharif University of Technology Iran

Technical Committee

Chairman: Bayardo Materon Brazil President of CFRD Int. Society

Vice Chairman:

Humberto Marengo, Mexico Vice President of CFRD Int. Society

Tauseef I. Choudry Vice President MWH (Montgomery Watson Harza) USA

Palmi Johannesson USA Member of CFRD Int. Society

Vice chairman of CFRD WORLD

Members:

Manoel S. Freitas Jr Brazil Member of CFRD Int. Society

Björn Stefánsson Iceland Member of CFRD Int. Society

Jorge Crempien Dean College of Engineering Universidad de los Andes, Chile
Wang Dengke Deputy Chief Engineer of Xiaolangdi Engineering Consulting Co., Ltd
China
Yang Xiaoming Member of of CFRD Int. Society Hubei Province Design
Institute, China
Zhou Pingji Maniging Director Laodikou Hydropower Development Co.
Ltd, China

Organizing Committee

Chairman: Alberto Scuero **Italy** Vice president of CFRD Int. Society
Design & Administration CARPI TECH S.A. Switzerland

Executive Vice Chairman:

Chen Qian Secretary General of CFRD Int. society
Managing Director of HydrOu China

John Tan (Singapore) Deputy -Secretary General of CFRD International Society

Members:

Julio Echevarria Member of CFRD Int. Society
Carén Tailing Dam Project Vicepresidencia Corporativa de Proyectos
CODELCO, Chile

Normand Beauséjour Canada Member of CFRD Int. Society

James O Akanmu Secretary, Nigerian Committee on Large Dam

Secretariat

Secretary General: Huang Fangfang Secretary of CFRD Int. Society

Deputy Secretary General: Zheng Ya Senior Engineer,
Deputy Managing Director of HydrOu China

Charrette on Key Technology for High CFRD Construction

Registration Form

| Name | Sex | Position | Title |
|--|-----|----------|-------|
| | | | |
| Country | | | |
| Organization | | | |
| Address | | | |
| Tel/Fax | | | |
| Email | | | |
| Article to submit | | | |
| Main outstanding achievements to be introduced by presiding chairman;: | | | |
| | | | |

