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

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

Sponsored By:

CFRD Int. Society

MAIN THEMES

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
5. Discussion on the high CFRD Design Code

VENUE
Hong Kong, China

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 August 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.

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

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Participants</td>
<td>500</td>
<td>550</td>
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</tbody>
</table>

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: BKCHCNBJ 600
Be sure not to omit Chen Qian in the account.
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
   Palmi Johannesson   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
   Tauseef I. Choudry   Vice President MWH (Montgomery Watson Harza) USA
   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 CFRD Int. Society   Hubei Province Design Institute, China
   Zhou Pingji    Managing Director Laodikou Hydropower Development Co. Ltd, China

Organizing Committee
Chairman: Alberto Scuero   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

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

Secretariat
Secretary General: Huang Fangfang  Secretary of CFRD Int. Society  
Deputy Secretary General: Zheng Ya  Senior Engineer, Deputy Managing Director of HydrOu China

Opening speech made by Mr. Bayardo Materon  President of CFRD Int. Society  
Closing speech made by Humberto Marengo Mogollon  Vice President of CFRD Int. Society  
Opening ceremony chaired by Mr. Chen Qian  Secretary General of CFRD Int. Society  
Closing ceremony chaired by Alberto Scuero  Vice President of CFRD Int. Society

Charrette on Key Technology for High CFRD Construction

<table>
<thead>
<tr>
<th>Name</th>
<th>Sex</th>
<th>Position</th>
<th>Title</th>
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<tbody>
<tr>
<td>Pedro Castellanos</td>
<td>Male</td>
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</table>

Country  
Organization  
Address  
Tel/Fax  
Email  

Position in Charrette: Member  
Article to submit  

Main outstanding achievements to be introduced by presiding chairman;:
## Charrette on Key Technology for High CFRD

Nov. 30-Dec. 3 2008 Hong Kong  

**Secretary No: CC01**

<table>
<thead>
<tr>
<th>Time</th>
<th>Subject</th>
<th>Description</th>
<th>Chair</th>
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</table>
| Nov. 30 8:00~19:00. | Registration | **Charrette venue**: Hong Kong Regal Airport Hotel  
**Add**: 9, Cheong Tat Road, Hk International Airport, Chek Lap Kok, Hong Kong  
**Tel**: 00852-22868888  
**Conference venue**: The Hotel Meeting Hall | Chen Qian (China)  
John Tan (Singapore) |
| Dec. 1 8:00~9:00 | Opening ceremony | B. Materón (Brazil) --- opening speech  
Chen Qian (China) --- briefing of CFRD International Society registration and statute | Humberto Marengo (Mexico) |
| 9:00~9:30 | Coffee break | Chen Qian (China) --- Seismic stability of CFRD after having been impacted by the magnitude 8.0 earthquake | Chen Wuyi (China) |
| 10:00~12:00 | Presentation | Paulo Cruz (Brazil) -- Design Criteria for CFRD  
Tang Yu (China) -- Seismic stability of CFRD after having been impacted by the magnitude 8.0 earthquake  
The Hotel Restaurant | Alberto Scuero (Italy) |
| 12:00~ | Lunch |  
Wang Dengke (China) -- Brief Introduction to Sand-gravel Dam Seepage Control Construction Technologies for Xixiayuan Counter Reservoir with Inclined Compound Geomembrane Core |  
| 14:30~16:00 | Presentation | Tauseef I. Choudry (USA) -- Construction Aspects of Concrete Face Rockfill Dams  
Wang Dengke (China) -- Brief Introduction to Sand-gravel Dam Seepage Control Construction Technologies for Xixiayuan Counter Reservoir with Inclined Compound Geomembrane Core | Markus Aufleger (Austria) |
| 16:00~16:30 | Coffee break |  
Coffee break |  
| 16:30~18:00 | Presentation | Yang Xiaoming (China) -- Study on construction of 300m high CFRDs  
Zhang Lizhi (China) -- Design of Xiaohe CFRD  
Yang Lihao (China) -- Control technology for uplift due to grouting into plinths  
The Hotel Restaurant | Markus Aufleger (Austria) |
| 18:00~ | Dinner |  
Dinner |  
| 8:00~10:00 | Presentation | B. Materón (Brazil) -- The development of the Extruded Curb as important construction tool for CFRDs  
Weerayot Chalermon (Thai) -- Design and construction of Nam Ngum2 CFRD in Laos  
Pedricto Rocha Filho (Brazil) -- Leakage Detection by DTS  
Markus Aufleger (Austria) -- Observed and Predicted Deflections of Upstream Membrane of Rockfill Dams During Reservoir Filling | Tauseef. Choudry (USA) |
| 10:00~10:30 | Coffee break |  
Coffee break |  
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<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Presenters</th>
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<tbody>
<tr>
<td>Dec. 2</td>
<td>10:30~12:00 Presentation</td>
<td>Zhou Pingji (China) --- Construction management on Laodukou CFRD</td>
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<td>Gong Qianliang (China) --- Construction Practice of CFRD of Upper Reservoir of Yixing Pumped-storage Power Plant</td>
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<td>Ge Lianhe (China) --- Application of extruded curb technology in Xiaohe CFRD Construction</td>
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<td>Zhang Jiaguo (China) --- Improvement in extruder for extruded curb CFRD Construction</td>
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<td>12:00~</td>
<td>Lunch</td>
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<td></td>
<td>13:50~</td>
<td>Preparatory meeting</td>
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<td>Participants: leaders of groups—how to chair next day’s discussion in group</td>
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<td>14:30~15:30</td>
<td>Design code</td>
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<td>Yang Xiaoming --- Advice for Design Code for High Concrete Face Rockfill Dams</td>
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<td>15:30~16:00</td>
<td>Coffee break</td>
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<td>16:00~18:00</td>
<td>Discussion</td>
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<td>Discussion in groups</td>
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<td>Chaired by group leaders for collecting modifications and supplements for the design code</td>
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<td>18:00~</td>
<td>Dinner</td>
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<td>19:00~19:30</td>
<td>Working meeting</td>
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<td>Participants: President, vice presidents and Secretary General, directors and members of CFRD Int. Society</td>
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<td>Subject: Working plan for 2009~2010 and suggestions for CFRD Int. Society</td>
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<td>8:00~10:00</td>
<td>Presentation of discussions</td>
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<td>Dec. 3</td>
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<td>Presentations by group leaders in series order 1,2,3,4,5,6,7 15min/ presenters</td>
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<td>10:00~10:30</td>
<td>Coffee break</td>
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<td></td>
<td>10:30~12:00</td>
<td>Finalizing the code</td>
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<tr>
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<td>Participants:</td>
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<tr>
<td></td>
<td></td>
<td>1. Finalizers</td>
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<tr>
<td></td>
<td></td>
<td>B. Materón</td>
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<tr>
<td></td>
<td></td>
<td>Cao Keming (China)</td>
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<tr>
<td></td>
<td></td>
<td>H. Marengo (Mexico)</td>
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<td></td>
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<td>Paulo Cruz (Brazil)</td>
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<td></td>
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<td>Alberto Scuero (Italy)</td>
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<td>2. Draftsmen</td>
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<td></td>
<td></td>
<td>Yang Xiaoming (China)</td>
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<td>Manoel S. Freitas Jr (Brazil)</td>
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<tr>
<td></td>
<td>12:00~</td>
<td>Lunch</td>
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<td></td>
<td></td>
<td>B. Materón</td>
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</table>
## Discussion on the design code in groups

1. **Design Group**: Yuan Hui (China)  
   (Deputy leader: Manoel S. Freitas Jr (Brazil) Wang Dengke (China) Deng Chuanli (China))

2. **Construction Group**: Tauseef Choudry (USA)  
   (Deputy leader: Gong Qianliang (China) S. C. Mittal (India) Adama NOMBRE (Burkina Faso))

3. **Research Group**: Mercer Island (USA)  
   (Deputy leader: Yang Xiaoming (China) Shadananan Nair (India) Zhang Lizhi (China))

4. **Material Group**: Markus Aufleger (Austria)

5. **Construction Management Group**: Weerayot Chalermnon (Thai)  
   (Deputy leader: Tan YL (Malaysia) Zhou Pingji (China))

6. **Construction plants**: Carlos A Jaramillo (USA)  
   (Deputy leader: Zhang Jiaguo (China))

7. **Instrumentation Group**: Pedricto Rocha Filho (Brazil)  
   (Deputy leader: Ren Shangqing (China))

8. **Aseismatic Design Group**: 

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**The Hotel Restaurant**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Presenter</th>
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<tr>
<td>14:30~160:00</td>
<td>Issue the code</td>
<td>B. Materón (Chinese version by Ren Shangqing)</td>
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<tr>
<td>160:00~16:30</td>
<td>Coffee break</td>
<td>Adama NOMBRE (Burkina Faso)</td>
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<tr>
<td>16:30~17:30</td>
<td>Minutes</td>
<td>Paulo Cruz</td>
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<tr>
<td></td>
<td>Closing</td>
<td>Chen Qian</td>
</tr>
<tr>
<td>18:00~</td>
<td>Dinner</td>
<td>The Hotel Restaurant</td>
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</table>
Dear Sir,

How are you these days?

CFRD INTERNATIONAL SOCIETY organized CFRD experts from relative countries 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 and 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 compose this High Concrete Face Rockfill Dam Design Code. The purpose of this Code is to provide guidance to the word CFRD builders to construct high CFRDs successfully.

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.

This paper is now published for the purpose of taking counsel with revising the paper. It will be officially published in a proper time by CFRD Int. Society.

The code can guide the construction of world high or very high CFRDs and also renew new theory and ideas for design of middle and low CRRDs.

People involved in CFRD construction can feel free to revise the paper with convictive theory and practice.

1. Finalizers:
   Bayardo Materon     Brazil
   Cao Keming         China
   Paulo Cruz         Brazil
   Humberto, Marengo  Mexico
   Alberto Escueiro   Italy

2. Drafters:
   Yang Xiaoming       China
   Manoel S. Freitas Jr Brazil
   Tan Yung, Leong     Malaysia
   Chen Qian           China

3. Composers:
   Ren Shangqing       China
   Yuan Hui            China
   Fernando Saboya     Brazil
   Etienne Frossard    Mexico
   Palmi Johannesson   USA
   Fabio Amaya         Iran
1. The design code for high CFRDs will be discussed at Charrette Nov. 30–Dec.3, 2008 Hong Kong and after that published by CFRD Int. Society for the purpose of guiding the design of world CFRDs successfully, especially for high, middle high and very high CFRDs. Any CFRD builders are welcome to attend this Charrette paying registration fee at USD$500/person. You will be paid USA $100 i.e. send CFRD Int. Society USD$400.

2. The code will be published officially in English and Chinese in Journal of CFRD WORLD ISSN 1997-9185 and put in practice.

3. CFRD experts, one or two nominated by you can be composers of the code with a composer fee of USD $ 700 (you get USD$200) from designer or/and constructor /contractor, supervisor, senior staff, or owner or researcher in any part of your country or/ and accumulated much experience for high CFRD design or/and construction, or management or supervision, or research.

4. Companies could be one of cosponsors of the code publication if they want to make promotions of their products, technologies, equipments, instrumentations, materials related to CFRDs, following the Text of the code, cosponsor fee may be USD$ 2000–2500, you will get 30% as commission.

5. You may subscribe our high concrete face rockfill dam design code instead of CFRD Int. Society at USD$ 70, you will get USD$ 50 / copy.

All these transactions shall be finished before August 30, 2008 and send the remaining sum to CFRD Int. Society after your deduction from each case.

CFRD INT. SOCIETY SECRETARIAT
41-210 Zhenping Road Yichang 443002 China
Fax: 86-717-6721379
Email/msn: mail.chenqian@gmail.com