

## Mall för redovisning av svensk medverkan i ICOLDs kommittéer och arbetsgrupper

[SwedCOLDs delegater ska årligen rapportera från sina respektive kommittéer. Använd nedanstående mall och skriv 1-2 sidor. Rapporteringen kommer att läggas ut på SwedCOLDs hemsida.

**Kommitté:** [COMMITTEE ON HYDRAULICS FOR DAMS]

The Committee on Hydraulics for Dams met in Johannesburg, Republic of South Africa, on 17th May 2016.

This was the eight meeting of the Committee on Hydraulics for Dams in the programme to carry out the tasks related to the preparation of a complementary issue of Bulletin 58 -1987, as defined by the TOR established by ICOLD upon completion of the previous phase.

**Förordnandeperiod:** [2013-2016]

**Kommitténs ordförande:** [Brasil P Machado, Brasilien]

**Svensk delegat:** [James Yang, Vattenfall AB/KTH, [james.yang@vattenfall.com](mailto:james.yang@vattenfall.com);  
jamesya@kth.se]

### Kommitténs uppdrag:

The new Bulletin "Spillways of dams" will concentrate on large hydropower underdevelopment, more complex about hydraulic point of view, mainly for spillways in view to solve the problems of the increasing discharge capacity, the reduction of the cost and the available width .More environmental requirements will be met, with some new concepts and technical measures to be developed and applied

1. Everything which concerns of new types of spillways : capacity, shape, (for instance PK weirs)
2. New types of energy dissipaters, such as the slit flip bucket, flaring pier gate, jet flows collision combined with plunge pool in arch dam, orifice spillway tunnel, vortex shaft spillway tunnel;
3. Aeration and cavitations mitigation measures, mainly concentrated on the large spillway tunnels and chute spillways;
4. Flow induced vibration researches considering the large and high head radial gates and emergency gates by physical and numerical models and field observations;
5. Hydraulic field observations for the safety, verification of the project.

### Lägesrapport 2016:

[Beskriv arbetsläge för resp. punkt i T.O.R. inkl. huvudsakliga aktiviteter, möten, resultat och din egen medverkan under innevarande år.]

The following list depicts the Committee membership participation and the attendance to the Johannesburg meeting.

<u>COUNTRY</u> PAYS	<u>NAME OF PARTICIPANT</u> NOM DU PARTICIPANT	P /A	OBSERVATIONS
Brazil	B. P. MACHADO (Chairman)	P	
China	GUO JUN (Vice-Chairperson)	A	
Australia	R. WARK	P	
Belgium	A. LEJEUNE (Chairman of Previous Phase)	A	Excused
Bolivia	G. RODRIGUEZ ROCA	A	Excused
Canada	Z. MICOVIC	A	

Czech	J. HODAK	A	
France	B. TAQUET	P	
Germany	R. HASELSTEINER	A	
India	SIBA PRASAD SEN	A	
Iran	C. FOULADI	A	
Italy	A. PIETRANGELI	A	
Japan	T. TAKATSUKA	P	
Korea	I. KO	A	
Mexico	H. MARENGO	P	
Netherlands	B. PETRY (Former Committee Chairman)	A	
Norway	H-M. KJELLESVIG	A	Substituted by L. LIA
Pakistan	A. BASHIR	A	
Portugal	A. PINHEIRO	A	Co-opted member
Russia	R. SHAKIROV	P	
So. Africa	H-J. WRIGHT	P	
Sri Lanka	K. LAKSIRI	A	
<b>COUNTRY</b> <b>PAYS</b>	<b>NAME OF PARTICIPANT</b> <b>NOM DU PARTICIPANT</b>	<b>P / A</b>	<b>OBSERVATIONS</b>
Spain	A. GRANADOS	P	
Sweden	J. YANG	P	
Switzerland	A. SCHLEISS	P	
Switzerland	R. BOES	A	Co-opted member
UK	P. MASON	A	
USA	J. E. LINDELL	P	
Venezuela	A. MARCANO	A	
France	B. HOUDANT	P	Observer
France	B. BLANCHER	P	Observer
Egypt	E. S. SHERIF	P	Observer
Australia	S. PELLIS	P	Observer
So. Africa	S. J. VAN VUNREN	P	Observer
So. Africa	X. MEDLEZSHEX	P	Observer
Egypt	H. SAMEH	P	Observer
Switzerland	V. DE GENOT	P	Observer
Kenya	H. NDUGAH	P	Observer

## **Agenda**

1. Welcome address
2. Introduction of new members and updating list of participants and email addresses.
3. Relevant information from the 16<sup>th</sup> of May meeting of Technical Committee Chairs
4. Observations and review of edited Final Draft of the Bulletin

For each chapter, the main writer or chapter coordinator shall present the relevant points of the chapter, discuss comments offered by members, and identify questions or issues still needed to be clarified. It is assumed that Committee members have read the edited draft texts available from the share space of the ICOLD website and have prepared in advancement their comments.

5. Planning of the work to be carried out before the end of 2016 which will include:
  - a. Final content editing of all chapters
  - b. Preparation of texts in ICOLD regular format
  - c. Preparation of annexes (large tables and cases)
6. If possible, information on the Bulletin on Sediment and Debris Flow.
7. Other subjects proposed by committee members

## 8. Conclusion and meeting adjournement

### **Welcome address**

The Chairman welcomed participants and informed that some members advised him that they could not be present at the meeting due to different reasons some personal and others related to travel problems. Some of them had sent written observations and contributions to the bulletin final draft text.

### **Minutes of the Stavanger Meeting**

The draft minutes of the 2015 Stavanger meeting were prepared and sent to all members on 24<sup>th</sup> June 2015 with requests for comments and observations. Comments were received from Siba P. Sen but they did not imply changes in the initial texts, and therefore the final issue of the minutes was distribute to members on the 31<sup>st</sup> July 2015

### **Relevant observations on the meeting of Technical Committee Chairs**

The Chairman informed that during this meeting a list of bulletins being translated and prepared for final issuance was provided by the Secretary General. According to this list the Environmental Fluid Mechanics Bulletin, completed in English in 2013, is now ready to be published.

### **Membership news and updating of list of participants and addresses**

New members have been appointed to replace members who retired:

From Japan, Mr. T. Takatsuka replaces Mr. T. Hino

From Coreia, Mr. I. Ko replaces Mr. S. Lee

The Chairman welcomed the new members.

Still pending a confirmation is needed about the continuation of Carlos Matias Ramos, from Portugal, after his retirement from LNEC.

A list of attendance was circulated and email addresses updated or confirmed. The compiled information is attached to this report.

### **Observations and review of edited Final Draft of the Bulletin.**

During last semester, Members have completed and sent to the Chairman the final drafts of the 10 chapters of the bulletin. The Chairman has reviewed and organised the whole work in a uniform format and has prepared a summary of contents, a list of Committee Members and the list of credits for those members who produced the text.

During the meeting, Members reviewed the complete draft and additional observations were offered where found necessary.

A summary of decisions is as follows:

- Chapter 1 – approved without changes;
- Chapter 2 – approved with following observations:
  - Taquet suggested the inclusion of a phrase in item 2.2.3 in relation to the need of observing reservoir maximum level when design considers flood routing through the reservoir for defining spillway design flood.

- Marengo has some sparse observations and he will email the Chairman for eventual inclusion in the final version of chapter.
- Chapter 3 – approved without changes;
- Chapter 4 – include references on converging stepped spillway but do not change main text which is approved as it is;
- Chapter 5 – approved without changes;
- Chapter 6 – approved without changes;
- Chapter 7 – text revised by Machado approved;
- Chapter 8 – text revised by Prof. Lia, approved;
- Chapter 9 – approved without changes;
- Chapter 10 – text revised by Machado including comments by Taquet and Wright, approved;
- Acknowledgements – include a mention of H-J Wright contributing to Chapter 4 and Prof. Lia to Chapter 8;
- General – the following general observation were made:
  - double check spelling of names of persons and locations;
  - provide due credits for figures and photos used in the bulletin;
  - use numbers to indicate features in maps and figures to simplify references in English and French.

It was agreed that additional notes and observations by Members should be sent to the Chairman before 30<sup>th</sup> of June. The Chairman will produce a final version of the bulletin prior to the end of the year, and submit it to the ICOLD Board expecting approval in the 2017 Annual Meeting.

### **Bulletin on Sediment and Debris Flow.**

As it is known, an agreement was made between the Hydraulics for Dams Committee and Committee S – Flood Evaluation and Dam Safety, to join efforts to produce a new bulletin combining work of both committees centred in debris and sedimentation controlled by spillways. The corresponding chapter in our bulletin was then reassigned to the new bulletin, and from the Hydraulics for Dams Committee, Mr. Robert Wark, who wrote the chapter, is coordinating the new work.

During the meeting he presented a summary of the evolution of this work which shows that substantial progress has been achieved. The Chairman will ask Mr. Wark to make available to the Members of our committee the material produced for this bulletin.

### **Other subjects proposed by committee Members**

There were no other subjects proposed by Members

### **Conclusion**

The Chairman observed that the work of preparing a bulletin on Spillway Innovations reached its end, and a high quality text with very relevant information for designers and owners of dams and hydraulic projects, was produced. He also observed that the work involved the participation of all Committee Members who dedicated appreciable time and effort to produce the document. He also mentioned that the work developed as planned reaching its goal strictly within the 6-year assigned time. He hopes that the translation into French and the distribution to ICOLD National Committees proceed without unnecessary delays.

**Kommande aktiviteter 2017:**

[Beskriv planerade aktiviteter, möten, resultat och din egen medverkan under nästkommande år o.s.v.]

The Chairman mentioned that after finishing this assignment he expect to retire and a new chairman will be assigned to the Hydraulics for Dams Committee to carry out a new task that will be defined by the ICOLD Board.

The committee members will meet during the Prague annual meeting in July and discuss and decide the work for the coming years.

**Övrigt:**

[Kompletterande information och mer personliga reflexioner.]



James Yang

Älvkarleby

2016-11-28