



**75th ANNUAL MEETING OF THE ICOLD**

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**St.Petersburg 2007**



# **SYMPOSIUM**

**DAM SAFETY MANAGEMENT. ROLE OF STATE,  
PRIVATE COMPANIES AND PUBLIC IN DESIGNING,  
CONSTRUCTING AND OPERATING OF LARGE DAMS**

## **ABSTRACTS**



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The Symposium and the Workshop during the ICOLD  
75th Annual Meeting were prepared  
by Russian National Committee on Large Dams  
and by JSC «The B.E. Vedeneev VNIIG»



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## PREFACE

Dam construction today is more than mere technique. The range of operation and influence of large dam plants has expanded during the previous years and is still experiencing further changes. High investment costs on the one hand, and long life and operation cycles on the other open up new opportunities for private financing through various models. This stimulus is mutually passed from the methods of construction through to their execution and vice versa, so that in the recent past new fascinating and innovative solutions have been proposed and realised.

Also increased requirements from outside, especially the ecological developments and extended multiple-usage have made the continuous adaptation of purpose and operation a necessity. Last but not least, as a result of public pressure, issues of security and risk minimization for plants with high potential danger have come in the fore.

Thus, sufficient reason was given to bring these topics on to the agenda in Symposium "Dam Safety Management. Role of State, Private Companies and Public in Designing, Constructing and Operating of Large Dams" on the occasion of ICOLD's 75th Annual Meeting in St.Petersburg, Russia, 2007. Therefore, Symposium concentrates on the following main topics:

- Large dams safety criteria, methodological background and current practice in assignment of dam safety.
- Legislative and methodological framework of dam safety management.
- General approaches towards safety management of large dams.
- Methods of risk analysis and risk assessment for large dams; risk management.
- Requirements of international credit organizations to safety of dams.
- Monitoring and information-diagnostics systems. Planning of repair and rehabilitation of structures.
- The role of large dams in hydropower and water resources management.
- Forms and methods for large dams (group of dams) management.
- Role of the state, relations with business and financial organizations.
- Investment in hydropower and water resources.
- Quantitative assessment of positive and negative consequences of construction and operation of large dams.

These proceedings contain all abstracts submitted for Symposium on the basis of a general invitation and abstracts of general reports (full papers are on attached CD-disc). We hope all participants will find these proceedings useful and inspiring to further progress on the topics covered by Symposium.

Due to this collection of abstracts it was a hard and thankless job for the Scientific Committee to select only a few ones for oral presentation during Symposium, although four sessions have been installed. Therefore we ask for your comprehension. The Sessions are the following:

- Session I. Large dams role for society and management methods.
- Session II. Financial and economic aspects.
- Session III. Large dams safety management.
- Session IV. Technical policy to ensure large dams safety.

The Scientific Committee wish to thank all authors who have been willing to share their knowledge and experience with other dam professionals.

All papers are typed by the authors according to instructions given in the call for papers. We can therefore not be held responsible for misprints or errors in the text.

Scientific Committee June 2007

**Session I. Large dams role for society and management methods**

Chairman: *A. H. Walz*, Vice President of ICOLD

General reporter: Prof. *R. Lafitte*, Chairman of TC ICOLD on Governance of Dam Projects

**Session II. Financial and economic aspects**

Chairman: *E. Volkov*, member of the Russian Academy of Science

General reporter: *N. Matsumoto*, Director of Japan Dam Engineering Center

**Session III. Large dams safety management**

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**Session IV. Technical policy to ensure large dams safety**

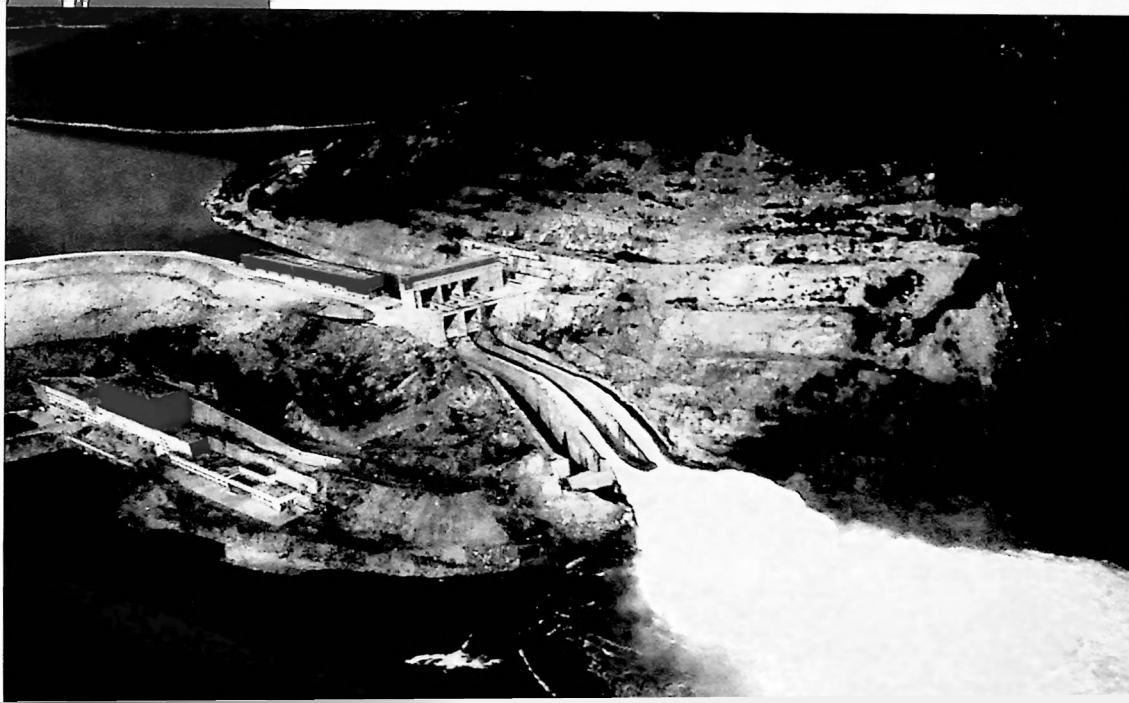
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# Session I

## LARGE DAMS ROLE FOR SOCIETY AND MANAGEMENT METHODS





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