

TECHNICAL DICTIONARY ON DAMS
DICTIONNAIRE TECHNIQUE DES BARRAGES
TECHNISCHES WÖRTERBUCH FÜR TALSPERREN
DICCIONARIO TECNICO DE PRESAS
DIZIONARIO TECNICO DELLE DIGHE
DICCIONARIO TECNICO DAS BARRAGENS

APPENDIX - ANNEXE

GLOSSARY OF WORDS AND PHRASES RELATED TO DAMS
GLOSSAIRE DE TERMES RELATIFS AUX BARRAGES



1994

Le Code de la propriété intellectuelle n'autorisant, aux termes de l'article L. 122-5, 2° et 3° a), d'une part, que les « copies ou reproductions strictement réservées à l'usage privé du copiste et non destinées à une utilisation collective » et, d'autre part, que les analyses et les courtes citations dans un but d'exemple et d'illustration, « toute représentation ou reproduction intégrale ou partielle faite sans le consentement de l'auteur ou de ses ayants droit ou ayants cause est illicite » (art. L. 122-4).

Cette représentation ou reproduction, par quelque procédé que ce soit, constituerait donc une contrefaçon sanctionnée par les articles L. 335-2 et suivants du Code de la propriété intellectuelle.

ENGLISH

GENERAL TABLE OF CONTENTS

TABLE GÉNÉRALE DES MATIÈRES

Foreword
Avant-propos

Introduction
Introduction

Alphabetical index
Index alphabétique

Table of contents of Dictionary
Table des matières du Dictionnaire

Dictionary
Dictionnaire

Appendix - Glossary
Annexe - Glossaire

ENGLISH	FRANÇAIS	DEUTSCH	ESPAÑOL	ITALIANO	PORTUGUES
Pages					
5	7	9	11	13	15
6	8	10	12	14	16
17	37	61	85	109	133
161	162	163	164	165	166
169	169	169	169	169	169
369	369				

ENGLISH

FOREWORD

Publication of an ICOLD Technical Dictionary was first planned for 1940 but, because of the War, the first edition did not appear until 1950. It was in French, English (with American usage) and German. The original framework and illustrations were established by the French Committee.

A second edition which included an expanded section on constructional plant was published in 1958 in French, English, German, Spanish, Italian and Portuguese.

The 35th Executive Meeting in Istanbul in 1967 adopted a proposal by the Finnish Committee to set up a Committee on the Technical Dictionary, chaired by J. Bellier (France), to prepare a third improved and enlarged edition. The draft was submitted to the 40th Executive Meeting in Canberra in 1972, but the 41st Executive Meeting in Madrid in 1973 dissolved the Committee. It was resolved to pass the incomplete draft to Central Office and appoint an ad hoc Committee on the Dictionary to assist Central Office in completing compilation and publication.

At the 44th Executive Meeting in Mexico City in 1976, the Committee on the World Register of Dams, whose terms of office had just come to an end, and the ad hoc Committee on the Dictionary were dissolved and replaced by a new Committee on the Dictionary, the Glossary and the World Register of Dams. It was chaired by J. Vernisse (France) from 1976 to 1977, then by J. G. du Plessis (South Africa) from 1977 to 1984.

The Committee first prepared a Table of Contents comprising twelve Chapters with sub-divisions and then set about compiling a list of terms in French and English. These were translated into the other four languages of the Dictionary (German, Spanish, Italian and Portuguese). Preparation of the Glossary, the first edition of which by the Committee on the World Register of Dams had been published in 1970, proceeded alongside the Dictionary so that the terms in the Dictionary which needed definition could be included in the Glossary. Co-ordination was greatly facilitated by the energetic direction of J. Cotillon, who also guided the compilation of the Glossary on the French side.

The third edition appeared in 1978. It has 2 687 entries including many synonymous terms and nuances, with an appended French and English Glossary of definitions for about one-seventh of the terms in the Dictionary.

Some ten years after the appearance of this Dictionary and Glossary, it became apparent that they would both benefit from revision in order, among other things, to

include new terms reflecting development in many areas of dam engineering over recent years.

A Committee on the Dictionary and Glossary was accordingly appointed by the 54th Executive Meeting in Jakarta in 1986. The Membership is, in 1992, as follows :

France	Y. Le May, Chairman
Great Britain	M. F. Kennard
Italy	C. Niccolai
Netherlands	J. Van Duivendijk
Portugal	F. Teixeira Direito
Spain	J. L. Allende *
Switzerland	R. Bischof
USA	R. C. Armstrong

This latest edition prepared by the above Committee embodies the following features :

(i) The Committee has decided to retain the same format as in the previous edition with the same Chapter headings, except for the addition of a new sub-section (4-7 Tailings Dams).

(ii) Only some twenty terms from the earlier Dictionary have been deleted as duplications or because they are included with other terms. Nearly all the terms in the Glossary have been retained, except for four.

(iii) A few interpretation, translation and printing have been corrected in both documents. Synonyms have been added for some terms in some languages in the Dictionary.

(iv) Three hundred and fifty-five new terms have been added to those in the previous edition of the Dictionary, bringing the total entries to 3 020. Many concern analysis, materials, construction methods, environment and dam safety.

(v) New sketches have been added to the Dictionary : fault types (section 1-3), tailings dams and construction methods (4-7), and spillway types (8-1).

(vi) A few of the definitions in the earlier Glossary have been amended and 105 new terms added, with definitions in French and English, an increase of around 30 per cent.

The experience and active collaboration of all the Committee members enabled this task to be successfully completed. They deserve our sincere appreciation.

Y. Le May
Chairman, Committee on the
Dictionary and Glossary

* Replaced the late R. Urbistondo, deceased 1989.

SUMMARY

- | | |
|--|-------------------------------|
| 1. Geomorphology - Surveying - Geology | 7. Foundation treatment |
| 2. Climatology - Hydrology - Hydraulics | 8. Ancillary works |
| 3. Water resource development - Reservoirs | 9. Power generation |
| 4. Dams | 10. Construction |
| 5. Materials | 11. Operation and maintenance |
| 6. Design studies | 12. Environment |

TABLE OF CONTENTS

1. GEOMORPHOLOGY - SURVEYING - GEOLOGY	6. DESIGN STUDIES
1-1. Geomorphology 169	6-1. General studies 262
1-2. Surveying and preparation of plan 174	6-2. Analysis 267
1-3. Geology and site investigation 178	6-3. Model tests 273
2. CLIMATOLOGY - HYDROLOGY - HYDRAULICS	6-4. Monitoring equipment 274
2-1. Climatology 186	7. FOUNDATION TREATMENT
2-2. Hydrology 189	7-1. Foundations and drainage 279
2-3. Hydraulics 197	7-2. Cut off 283
3. WATER RESOURCE DEVELOPMENT - RESERVOIRS	7-3. Grouting 285
3-1. Water resource development 200	8. ANCILLARY WORKS
3-2. Reservoirs 202	8-1. Spillways 287
4. DAMS	8-2. Intakes 300
4-1. Dam terminology 210	8-3. Outlets 302
4-2. Concrete dams 218	8-4. Gates and valves 305
4-3. Gravity dams 222	8-5. Other ancillary structures 315
4-4. Buttress dams 223	9. POWER GENERATION 318
4-5. Arch dams 225	10. CONSTRUCTION
4-6. Embankment dams 229	10-1. Contracts and job management 328
4-7. Tailings dams 233	10-2. Construction terms 335
4-8. Miscellaneous dams 235	10-3. Constructional plant 341
5. MATERIALS	11. OPERATION AND MAINTENANCE
5-1. Cement and cement concrete 236	11-1. Operation 353
5-2. Other concretes 245	11-2. Maintenance 355
5-3. Earth and rockfill 247	11-3. Monitoring 356
5-4. Other materials 255	12. ENVIRONMENT
	12-1. Environment - General 359
	12-2. Dam safety 363



APPENDIX

ANNEXE

**GLOSSARY OF WORDS
AND PHRASES RELATED TO DAMS**

**GLOSSAIRE DE TERMES
RELATIFS AUX BARRAGES**

CONTENTS

	Page
Introduction	3
English alphabetical index	5
French alphabetical index	12
Table of contents	18
Classification of words and phrases according to the sections in which they appear in the ICOLD Dictionary	19
Glossary (under sections)	28
Drawings	69

SOMMAIRE

	Page
Introduction	3
Index alphabétique anglais	5
Index alphabétique français	12
Table des matières	18
Classement des termes suivant les chapitres dans lesquels ils apparaissent dans le Dictionnaire de la CIGB	19
Glossaire (par chapitres)	28
Dessins	69

GLOSSAIRE DE TERMES
RELATIFS AUX BARRAGES

INTRODUCTION

This Glossary of words and phrases related to dam engineering is written in the two official languages of ICOLD : English and French.

It has been compiled with three objectives in mind :

1. To encourage English-speaking and French-speaking engineers to adopt a uniform and correct usage in their own language and to offer guidance to those engineers whose native tongue is neither English nor French.

2. To provide as precise an equivalent as possible in the two languages and to draw attention to differences and thereby help to prevent the misunderstandings which can occur through inaccurate translation.

3. To assist those who provide or use data appearing in the World Register of Dams. The symbols and column numbers used in the Register are referred to at appropriate places throughout the Glossary.

The Glossary has been designed to supplement the ICOLD Dictionary, in which no definitions are given. Words whose engineering meaning can readily be found or deduced from an ordinary dictionary without fear of misunderstanding have not been included in the Glossary.

Where synonyms are available in either English or French, the Glossary sometimes recommends the preferred alternative. For certain terms there is no corresponding term in the other language.

Terms which are not commonly used outside North America appear in the English text with the note (Am). Swiss and Canadian nuances in French are given in foot-notes.

Some long phrases appear in some sections; they are not referred to in the index.

Words and phrases appear in the singular except where language usage demands the plural; e.g. a term may be in the singular in English and in the plural in French, where usage of the plural is more frequent.

INTRODUCTION

Ce Glossaire de termes et d'expressions relatifs aux barrages a été rédigé dans les deux langues officielles de la CIGB, l'anglais et le français.

Il répond à trois objectifs :

1. Inciter les ingénieurs de langue anglaise et ceux de langue française à utiliser correctement le même vocabulaire et donner aux autres ingénieurs, dont la langue maternelle n'est ni l'anglais ni le français, une référence précise.

2. Indiquer des équivalents aussi rigoureux que possible dans les deux langues, signaler les divergences et éviter ainsi les erreurs ou difficultés de compréhension dues à une traduction littérale; ce Glossaire cherche donc à établir un pont entre les deux langues.

3. Fournir une aide aux utilisateurs du Registre Mondial des Barrages et à ceux qui en assurent la mise à jour. Ainsi les symboles et numéros de colonnes qui figurent dans le Registre sont rappelés à leur place dans le texte.

Le Glossaire a été conçu comme un supplément au Dictionnaire de la CIGB, dans lequel aucune définition ne figure. On n'a pas retenu ici les termes dont le sens technique ressort en général sans ambiguïté d'un dictionnaire courant.

Pour les synonymes, aussi bien en anglais qu'en français, une préférence a été parfois formulée. De même, l'absence d'équivalent dans l'autre langue a été, le cas échéant, signalée.

Les expressions typiquement nord-américaines figurent dans le texte anglais avec la mention (Am). Les nuances suisses et canadiennes des expressions françaises sont indiquées en renvoi en bas de page.

Quelques phrases, assez longues, figurent dans certains chapitres; on n'y fait pas référence dans l'index alphabétique.

Les expressions sont données au singulier, sauf quand l'usage commande leur emploi au pluriel. Elles peuvent être ainsi au singulier en anglais et au pluriel en français, le pluriel étant plus fréquent en français qu'en anglais.