Book review

Lessons from incidents at dams and reservoirs – an engineering guide: Ciria special publication 167

J. A. Charles, P. Tedd and A. L. Warren. Ciria, London, UK, 2014, ISBN: 978-0-86017-735-7, £120 (discounted price of £60 to Ciria members), 184 pp.

1. Format

This publication is largely based on the science report *Lessons from historical dam incidents*, which was published on the Environment Agency (EA) website in 2011. It has been provided as a hardcopy to keep the work available for engineers for decades to come, when access through a website might become problematic. It is 184 pages long and packed with information.

2. Scope

2.1 Historical overview

Part 1 provides an historical overview of dam development, incidents and reservoir safety from British experience over the last 200 years. This will be of interest to dam engineers and also reservoir owners with limited technical knowledge. This part could be read as a standalone history of dam development and legislation in the UK.

2.2 UK incidents

Part 2 lists incidents at 103 UK dams dating from 1799 (Blackbrook) to 2012 (Cwm Ebol). Blackbrook breached after overtopping caused by internal erosion and settlement. Cwm Ebol overtopped with severe erosion of the downstream face during a flood. The dams are listed in two tables; alphabetically by name and by incident classification.

Most of this part consists of summary sheets for each of the 103 incidents, with descriptions of the dam and the incident, in all cases followed by lessons. They are placed in 11 groups determined by the incident classification. The summary sheets are very informative and deserve to be studied in detail.

2.3 Incidents from overseas

Part 3 contains a selection of 20 major incidents from elsewhere in the world, some of which have had a major influence on dam design and assessment in the UK. The large increase from the four incidents in the science report is a result of feedback on the science report. Some are well known and some less well reported.

Figure 1. Warmwithens dam failure, 1970

3. Review

This publication is not a coffee-table hardback, but it should be regarded as a working document which needs to be accessible to all those involved in design, modification or monitoring of dams. There are many salutary lessons of mistakes made, some of which have been repeated several times, and hopefully this book will help to avoid them in the future.

It is not exhaustive: the authors have made a good selection of the most useful from existing Building Research Establishment (BRE) and EA incident databases plus some other important incidents. As a hardcopy it will not be updated but should stand as a very important benchmark. It is highly recommended. The dam community should be appreciative of the huge effort put in by the authors to bring it to publication.

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