



INFORMATION SHEET

PROFESSIONAL PRACTICE GUIDELINES - LEGISLATED DAM SAFETY REVIEWS

INTRODUCTION

As per the Dam Safety Regulation (*Regulation*), owners of high, very high or extreme failure consequence classification dams are required to complete a Dam Safety Review (DSR) every 7 or 10 years, as established in Schedule 1 of the *Regulation*:

www.bclaws.ca/EPLibraries/bclaws_new/document/ID/free_side/10_44_2000

The objective of the DSR, prepared by a *professional engineer* with qualifications and experience in dam safety analysis (a Qualified Professional), is to determine if the dam under review is *safe* as per Section 7 of the *Regulation*.

Dam safety reviews require a systematic review and evaluation of all aspects of the design, construction, maintenance, operation, processes and systems affecting a dam's safety, including the dam safety management system.

NEW GUIDELINES

In July 2013, the Association of Professional Engineers and Geoscientists of BC (APEGBC) published the Professional Practice Guidelines – Legislated Dam Safety Reviews. This document replaces the *BC Dam Safety Review Guidelines* (version 3 - Nov 2012) and is effective **immediately**.

The Guidelines assist in project organization and determination of responsibilities, and provide general principles governing dam safety analysis, quality assurance/quality control, and report presentation.

WHY IT WAS DEVELOPED

Feedback from dam owners, qualified professionals and Dam Safety Officers had identified shortcomings with the DSR process. Some of these included:

Dam Owners

- Where to find a qualified professional?
- What should be included in an RFP?

Qualified Professionals (QP)

- What are the minimum qualifications / experience required to be a QP?
- How to deal with significant information gaps
- What are the minimum requirements for a DSR report to be accepted by the regulator?
- Needed more guidance in dam safety analysis.

Regulatory Authority*

- Quality of work varied greatly.
- Many components of DSR were missing.

The new guidelines are meant to ensure that dam owners receive a valuable product; assist practitioners in self assessing whether they are qualified by training or experience to undertake and accept responsibility for legislated dam safety reviews, and ultimately provide greater protection to the public by raising the overall quality and consistency in the reporting of dam safety reviews.

HIGHLIGHTS

The Guidelines aim to clearly identify the roles and responsibilities of the dam owner, the qualified professional and the regulator authority.

They introduce the *Dam Safety Review Assurance Statement* that must be completed by the Professional Engineer / Qualified Professional attesting that the dam is “*reasonably safe*”, is “*reasonably safe*” revealing deficiencies and/or non-conformances, or “*not safe*” revealing deficiencies and/or non-conformances which **require urgent action**.

The term “*reasonably safe*” is intended to mean that the dam owner has implemented all dam safety management measures which conform to those norms that are considered by the Regulatory Authority and the engineering profession to reasonably reflect established engineering and dam safety management practices. This term is considered by the Regulatory Authority to be equivalent to the Dam Safety Regulation term of “safe”.

Discrete Scope Projects Directory can be found at: www.apeg.bc.ca

* The Regulatory Authority refers to the Responsible Ministry and includes a Dam Safety Officer, or the Comptroller or Regional Water Manager.

REGULATORY REQUIREMENTS

There are four types of dam safety reviews; comprehensive, audit, detailed design and performance review. In almost all cases the Regulatory Authority expects that a *comprehensive review will be required to meet the Regulation*. An audit style review will not be accepted unless prior written approval has been provided by the Regulatory Authority.

Dam Safety Review reports will only be accepted if they are considered complete, which includes a completed and sealed/signed *Dam Safety Review Assurance Statement*.

Should the result of the Dam Safety Review determine that the dam is “not safe” then it is the obligation of the dam owner to promptly follow the direction provided in Section 7.1 or 8 of the *Regulation*.

MORE INFORMATION

More information on dam safety can be obtained from the Responsible Ministry by contacting:

Dam Safety Section
Water Management Branch
PO Box 9340 Stn Prov Govt
Victoria BC V8W 9M1

Or the BC Dam Safety Program’s Website:

www.env.gov.bc.ca/wsd/public_safety/dam_safety/

The Association of Professional Engineers and Geoscientists of BC’s *Professional Practices – Legislated Dam Safety Review Guidelines* and