



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 specified in item 9 of the table in Schedule 2 of the *Regulation*.

The objective of the DSR, prepared by a *professional engineer* with qualifications and experience in dam safety analysis, is to determine if the dam under review is *safe* as per Section 20 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

- Minimum qualifications/experience required?
- Dealing with significant information gaps
- Minimum requirements for a DSR report to be accepted by the regulator?
- 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.

Qualified professional engineers may now add their name to APEGBC's Discrete Scope Projects Directory based on self-declarations indicating they are qualified by training or experience to provide engineering in the area of Dam Safety Analysis. This directory is available to the public in searching for qualified professionals.

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”.

REGULATORY REQUIREMENTS

The types of dam safety review can be broadly considered to cover a spectrum ranging from a comprehensive to an audit-type review and detailed design and performance review. It is the regulatory authority’s expectation that the **default** type that must be carried out by a dam owner under the provision of the *Regulation* is a *comprehensive review*. 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 14 or 15 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:

<http://www2.gov.bc.ca/gov/content?id=60AD5E15F2B943B19222DD348AED117>

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