



GUIDE TO THE STANDARD FOR DOCUMENTED CHECKS OF ENGINEERING AND GEOSCIENCE WORK

VERSION 2.0
PUBLISHED FEBRUARY 17, 2021



**ENGINEERS &
GEOSCIENTISTS**
BRITISH COLUMBIA

TABLE OF CONTENTS

PREFACE	ii
ABBREVIATIONS	iii
DEFINITIONS	iv
VERSION HISTORY	vi
1.0 INTRODUCTION	1
1.1 OVERVIEW	1
1.2 PURPOSE OF THIS GUIDE	1
1.3 ROLE OF ENGINEERS AND GEOSCIENTISTS BC	2
1.4 SCOPE	2
2.0 REGULATORY FRAMEWORK	4
3.0 STANDARDS FOR PRACTICE	6
3.1 WHAT IS THE PURPOSE OF CHECKING	6
3.2 HOW MUCH CHECKING IS REQUIRED	6
3.2.1 Level of Checking Required	6
3.2.2 Checking by Others versus Self-Checking	7
3.3 WHAT SHOULD BE CHECKED AND WHEN	7
3.3.1 Input Requirements	7
3.3.2 Input Data	7
3.3.3 Design Software	8
3.3.4 Engineering and Geoscience Work	8
3.3.5 Types of Checks	9
3.3.6 Documents and Deliverables	10
3.4 WHO IS QUALIFIED TO CHECK	10
3.5 HOW ARE CHECKS DOCUMENTED AND WHAT RECORDS ARE RETAINED	10
4.0 REFERENCES AND RELATED DOCUMENTS	12

PREFACE

This *Guide to the Standard for Documented Checks of Engineering and Geoscience Work* (the “Guide”) was developed by Engineers and Geoscientists BC to explain the standards of practice, conduct, and competence for Professional Registrants related to Checking of professional engineering or professional geoscience work.

This current revision was undertaken to provide clarity in guidance to Professional Registrants, in accordance with the scheme and requirements of the *Professional Governance Act* and Engineers and Geoscientists BC’s Bylaws.

This document outlines the appropriate standards of practice, conduct, and competence to be followed at the time it was prepared. However, this is a living document that is to be revised and updated as required in the future, to reflect the developing state of practice.

ABBREVIATIONS

ABBREVIATION	TERM
BC	British Columbia
EIT	Engineer-in-Training
GIT	Geoscientist-in-Training

DEFINITIONS

The following definitions are specific to this Guide. These words and terms are capitalized throughout the document.

TERM	DEFINITION
Act	The <i>Professional Governance Act</i> , S.B.C. 2018, c. 47.
Authenticate, Authenticating (see also Manually Authenticating and Digitally Authenticating)	The act of a Professional Registrant Manually Authenticating or Digitally Authenticating a Document.
Bylaws	The Bylaws of Engineers and Geoscientists BC made under the <i>Act</i> .
Check (or derivatives)	A documented process to confirm that the professional engineering or professional geoscience work is complete, meets all Input Requirements, and is suitable for its intended use or purpose. This encompasses all of the various checks that occur or ought to occur throughout the development, presentation, production, and performance of any Regulated Practice work in any sector.
Corrective Action	Action taken to identify and eliminate root causes of non-conforming work to prevent the non-conformance from recurring.
Digitally Authenticating	A Professional Registrant applying all of the following to a Document: (a) the Professional Registrant’s Digital Seal; (b) a digital image of the Professional Registrant’s signature; (c) a digital image of the date of authentication; (d) the Professional Registrant’s Digital Certificate.
Document(s)	Includes any physical or electronic Record, including but not limited to a report, certificate, memo, specification, drawing, map, or plan, that conveys a design, direction, estimate, calculation, opinion, interpretation, observation, model, or simulation that relates to the Regulated Practice.
Documentation	See the definition for “Record”.
Engineers and Geoscientists BC	The Association of Professional Engineers and Geoscientists of the Province of British Columbia, also operating as Engineers and Geoscientists BC.
Firm	As defined in the <i>Act</i> : “(a) a legal entity or combination of legal entities engaged in providing services in respect of a Regulated Practice, or (b) a ministry or agency of the government that the Lieutenant Governor in Council may prescribe by regulation, but does not include a legal entity or combination of legal entities that may be exempted from this <i>Act</i> by regulation of the Lieutenant Governor in Council.”

TERM	DEFINITION
Guide	A guide to a program or regulatory topic, published by Engineers and Geoscientists BC. These include Guides to quality management standards that in accordance with the <i>Act</i> and Bylaws define professional obligations related to specific processes and explain the minimum standards of practice, conduct, and competence expected from Professional Registrants and Firms.
Input Data	Data used as the basis for the professional engineering or professional geoscience work that may include, but is not limited to, test and survey data, design assumptions, applicable standards and codes, preliminary designs or reports, work prepared by other professionals, and information provided by the client.
Input Requirements	Requirements that the process or deliverable must meet or satisfy that may include, but is not limited to, client objectives and requirements, design criteria, applicable standards, codes and legislation, organizational requirements and standards, and requirements otherwise set out in Engineers and Geoscientists BC professional practice guidelines.
Manually Authenticating	A Professional Registrant applying all of the following to a Document: (a) the Professional Registrant's Manual Seal; (b) the Professional Registrant's handwritten signature; and (c) the date of authentication.
Professional of Record	The Professional Registrant who is professionally responsible for activities, work, or Documents related to the Regulated Practice.
Professional Registrant	A registrant of Engineers and Geoscientists BC who is registered in one of the following categories of registrants: (a) professional engineer; (b) professional geoscientist; (c) professional licensee engineering; (d) professional licensee geoscience; (e) life member prior to 1998; (f) honorary life member.
Quality Assurance	A set of activities intended to establish confidence that requirements will be met.
Quality Control	A set of activities intended to ensure that requirements are actually being met.
Record (Documentation)	Any Document that is evidence of Regulated Practice activities, events, or transactions, or is evidence that a Professional Registrant has met their professional and contractual obligations.
Regulated Practice	As defined in the <i>Act</i> and the <i>Regulation</i> , the carrying on of a profession by a registrant of a regulatory body, which for the purposes of this Guide means the practice of professional engineering or the practice of professional geoscience.
Regulation	The <i>Engineers and Geoscientists Regulation</i> , OIC 2021/037.

VERSION HISTORY

VERSION NUMBER	PUBLISHED DATE	DESCRIPTION OF CHANGES
2.0	February 17, 2021	Updated the content and terminology to conform with the <i>Professional Governance Act</i> and updated Bylaws; changed the main title to “Guide to the Standard for Documented Checks of Engineering and Geoscience Work”; changed the document category from “quality management guidelines” to “quality management guides.”
1.3	January 9, 2018	Updated format to align with new Engineers and Geoscientists BC brand; minor editorial corrections.
1.2	October 7, 2013	Minor editorial corrections.
1.1	February 25, 2013	Minor editorial corrections.
1.0	May 2012	Initial version.

1.0 INTRODUCTION

1.1 OVERVIEW

- 1.1.1 Engineers and Geoscientists BC is the regulatory and licensing body for the engineering and geoscience professions in British Columbia (BC). To protect the public, Engineers and Geoscientists BC establishes, monitors, and enforces standards for the qualification and practice of Professional Registrants.
- 1.1.2 Engineers and Geoscientists BC provides practice resources to Professional Registrants to assist them in meeting their professional and ethical obligations under the *Act* and Bylaws. One category of these practice resources is Guides to quality management standards, which explain the standards of practice, conduct, and competence for quality management in professional activities.
- 1.1.3 This *Guide to the Standard for Documented Checks of Engineering and Geoscience Work* explains the standards of practice, conduct, and competence for Professional Registrants related to documenting Checking that is carried out in their Regulated Practice. This Guide explains how Professional Registrants should carry out Checks and what Documentation should be retained.
- 1.1.4 This current revision was undertaken to provide clarity in guidance to Professional Registrants, in accordance with the scheme and requirements of the *Act* and the current Bylaws, and to assist Professional Registrants in upholding their professional obligations under the *Act* and Bylaws.

1.2 PURPOSE OF THIS GUIDE

- 1.2.1 This document explains the standards of practice, conduct, and competence expected of Professional Registrants when Checking professional engineering or professional geoscience work, and the requirements for appropriate Documentation of the Checking. This Guide provides a common approach applicable to all Professional Registrants who carry out Checks as part of their professional activities.
- 1.2.2 The specific objectives of this Guide are to:
1. describe the minimum standards for documenting Checks of professional engineering or professional geoscience work undertaken by Professional Registrants;
 2. assist Professional Registrants in establishing and maintaining a documented quality management procedure for regular, documented Checks of professional engineering or professional geoscience work to comply with the requirements of section 7.3.4 of the Bylaws;
 3. explain what types of Records must be retained when carrying out Checking of professional engineering or professional geoscience work;
 4. describe the qualities and procedures necessary to ensure that Checking is being adequately carried out and documented;

5. describe the procedures necessary for the creation, use, and retention of reliable Records for documented Checks; and
6. provide guidance on how to meet the quality management requirements under the *Act* and Bylaws when engaged in Checking professional engineering or professional geoscience.

1.3 ROLE OF ENGINEERS AND GEOSCIENTISTS BC

- 1.3.1 This Guide and the current revision was developed under the direction of Engineers and Geoscientists BC's Council and, prior to publication, underwent final legal and editorial reviews. This Guide forms part of Engineers and Geoscientists BC's continuing commitment to establishing and monitoring the quality of professional services that Professional Registrants provide to their clients and to the public.
- 1.3.2 Documented Checks of professional engineering and professional geoscience work is a requirement that is critical for assisting Professional Registrants in fulfilling their professional obligations, including holding paramount the safety, health, and welfare of the public. Checking work ensures that Professional Registrants appropriately obtain confirmation that professional engineering or professional geoscience work is suitably completed for its intended use or purpose and satisfies all Input Requirements.

1.4 SCOPE

- 1.4.1 Proper and appropriate Checks of engineering and geoscience work are fundamental to upholding the *Act* and Bylaws, including the Code of Ethics in Schedule A of the Bylaws, which require that all Professional Registrants hold paramount the safety, health, and welfare of the public, including the protection of the environment, and the promotion of health and safety within the workplace.
- 1.4.2 As required by the Bylaws, Professional Registrants must meet the requirement of establishing and maintaining documented Checks according to a documented process.
- 1.4.3 This Guide is intended to assist Professional Registrants in establishing and maintaining a documented quality management procedure for regular, documented Checks of their professional engineering and professional geoscience work that complies with the requirements of the *Act* and of the Bylaws by addressing:
 - assessing the risk and level of Checking required;
 - scheduling, resourcing, and budgeting for Quality Assurance and Quality Control;
 - confirming and documenting Input Requirements;
 - gathering and Checking Input Data;
 - self-Checking or Checks by others of calculations;
 - Checking, verifying, and validating professional engineering or professional geoscience work; and
 - documenting and retaining appropriate Records of Checks, corrections, and Corrective Action.

- 1.4.4 To comply with the Bylaws, Professional Registrants must have established, or have access through their Firm to, a documented Quality Control process that includes performing Checks appropriate to the risk associated with the work they are undertaking.
- 1.4.5 A documented Checking process is one that has been thought out and reduced to writing in suitable form. The process may be captured in a written procedure, process flowchart, checklists, forms to record Checks, or other Documentation developed to suit the nature of the work undertaken by Professional Registrants.
- 1.4.6 The Checking process may be as simple or as complex as the Regulated Practice work warrants. Expectations for the process should be adequately defined at the outset, including work to be Checked, when Checks are to occur, qualifications of persons required to perform the Checks, level of detail included in Checks and the method of recording Checks, corrections, and any Corrective Action. Checking may be carried out by a qualified individual independent of, or associated with, the work being Checked, or by the Professional Registrant who prepared the work.
- 1.4.7 Records of Checks must indicate what, if any, concerns were raised, how they were addressed and what, if any, Corrective Action was identified, approved, and undertaken.
- 1.4.8 These obligations apply to Professional Registrants acting in their professional capacities in all industries when their work involves, among other things:
- ongoing professional engineering or professional geoscience work;
 - projects with a defined start and finish;
 - products and services requiring the application of professional engineering or professional geoscience;
 - professional engineering or professional geoscience deliverables such as reports, drawings, specifications, digital artifacts, or other deliverables;
 - implementation or use of professional engineering or professional geoscience work as may be found in a manufacturing facility, technology company, operations, or utilities work;
 - construction or installation of professional engineering or professional geoscience work;
 - implementation or construction carried out by others;
 - implementation or construction being carried out by the Professional Registrant's Firm's own forces;
 - professional engineering or professional geoscience work carried out for use internally within the Professional Registrant's Firm; and
 - professional engineering or professional geoscience work carried out for others.
- 1.4.9 Terminology used within an industry may not match the terminology used in this Guide. However, the obligations of Professional Registrants in all industries remain the same: to ensure that documented Checks of the Professional Registrant's work meets the intent of the *Act*, Bylaws, and this Guide.

2.0 REGULATORY FRAMEWORK

- 2.1 Section 57(1) of the *Act*, Standards of conduct and competence, states that:
- “Subject to subsections (2) and (3), the council of each regulatory body must make bylaws establishing the following:
- (a) standards of professional and ethical conduct for registrants, which standards may be different for different categories or subcategories of registrants;
 - (b) standards of competence for registrants, which standards may be different for different categories or subcategories of registrants or different areas of practices;”
- ...
- 2.2 Section 7.3.4 of the Bylaws, Standard for Checks, states that:
- “(1) A Professional Registrant must establish, maintain, and follow documented procedures for regular, documented checks of the Professional Registrant’s work related to the Regulated Practice using a written quality control process appropriate to the level of risk that has been assessed through a documented risk assessment.
- (2) The procedures established pursuant to subsection (1) must include:
- (a) how risk will be assessed;
 - (b) the minimum frequency for checks to be conducted, dependent on the degree of risk assessed pursuant to (a);
 - (c) the required qualifications of the checker;
 - (d) how the check will be documented, including:
 - (i) who conducted the check;
 - (ii) the date that the check was completed;
 - (iii) what was checked; and
 - (iv) issues identified by the checker, if any;
 - (e) what must be checked, including but not limited to:
 - (i) input requirements;
 - (ii) input data;
 - (iii) calculations;
 - (iv) drawings;
 - (v) assessments;
 - (vi) designs;
 - (vii) software outputs;
 - (viii) communications that include directives, recommendations, or opinions related to the Regulated Practice;
 - (ix) reports;
 - (x) recommendations; and,
 - (xi) other activities or work related to the Regulated Practice, including activities or work related to manufacturing, high technology, computer software development, operations, and maintenance activities.

- (3) A Professional Registrant must ensure that a documented check has been conducted in accordance with the procedures established pursuant to subsection (1) on all activities or work related to the Regulated Practice that will be issued or delivered to any other party.”

2.3 This Guide is intended to assist Professional Registrants in understanding the minimum standard of practice and in fulfilling their professional obligations in accordance with section 7.3.4 of the Bylaws. Failure to meet the requirements as set out in this Guide could be evidence of incompetence, negligence, unprofessional conduct or breach of the Bylaws, and may lead to disciplinary proceedings by Engineers and Geoscientists BC.

3.0 STANDARDS FOR PRACTICE

3.1 WHAT IS THE PURPOSE OF CHECKING

- 3.1.1 Checking is a Quality Control process to confirm that the underlying work is complete, meets all Input Requirements, and is suitable for its intended use or purpose. Checking may be carried out by qualified individuals independent of, or associated with, the work being Checked, or by Professional Registrants who prepared the work. Checks are how Professional Registrants confirm that work they prepare meets Input Requirements and the appropriate standards of practice, conduct, and competence expected of them for similar professional work. Checks provide a second set of eyes or a second look for the Professional Registrants who prepared the work, to confirm that the work is ready to be provided to those who will rely on it. Checks are critical to developing and maintaining the reputation of Professional Registrants.
- 3.1.2 The Code of Ethics states that Professional Registrants must practice only in fields where they are competent based on their training, experience, and ability. Projects or work should be carried out only when appropriate resources are available with adequate time and budget to properly perform the work. No amount of Checking later can make up for lack of expertise and inadequate resourcing.

3.2 HOW MUCH CHECKING IS REQUIRED

3.2.1 LEVEL OF CHECKING REQUIRED

- 3.2.1.1 For Checks to be effective, proper planning must occur before professional engineering or professional geoscience work is carried out. When Professional Registrants are preparing proposals, business cases, or project plans, they must assess the complexity and duration of the work being undertaken, the risk associated with that work, and the applicable documented Checking process, to determine the extent and frequency of documented Checks required to meet the appropriate standard of care.
- 3.2.1.2 Once the extent and frequency of Checking is determined, a plan or scope of work that includes appropriate Checking may then be developed, scheduled, budgeted, and resourced. The plan should indicate what Checks will be carried out, when, and by whom.
- 3.2.1.3 Effective resourcing involves assessing the competence, experience, expertise, and qualifications required to perform the Checks, and confirming the availability of appropriately qualified personnel to perform the Checks.
- 3.2.1.4 Insufficient time or budget to conduct appropriate Checks is not an excuse for failing to conduct appropriate Checks.

3.2.1.5 A Professional Registrant may not rely on the expectation that a client, owner, or regulatory authority will subsequently carry out reviews as a reason to reduce the Checking that Professional Registrant conducts. Despite any expectation by a Professional of Record that work will be subsequently reviewed or Checked by others, the Professional of Record remains responsible for the professional engineering or professional geoscience work that the Professional of Record Authenticates.

3.2.2 CHECKING BY OTHERS VERSUS SELF-CHECKING

3.2.2.1 Do not use self-Checking as the only Check when any of the following apply:

- the Professional Registrant considers the probability of occurrence or the magnitude of the potential result are unacceptable for self-Checking;
- the work uses innovative rather than established methods;
- the work involves a structural design that falls under the requirement for an independent review; or
- the work is complex.

3.2.2.2 Some Engineers and Geoscientists BC professional practice guidelines and practice advisories may not permit self-Checking as the only Check. A Professional Registrant must refer to related Engineers and Geoscientists BC practice guidelines and practice advisories to confirm whether a Check by others is required for the activity that the Professional Registrant has undertaken.

Furthermore, some Firms may specifically require a Check by others, or disallow self-Checks as the only means of Checking in their quality management system.

3.2.2.3 Sole practitioners may use a different means of analysis at a later time to self-Check their work. Before proceeding to self-Check their work, sole practitioners must ask themselves whether self-Checking alone will meet the standard of care that would be exercised by other reasonable, prudent, and competent Professional Registrants performing the same work.

3.2.2.4 Even when a Check by others is performed, Professional Registrants must self-Check their work and not rely on others to find any errors or omissions.

3.3 WHAT SHOULD BE CHECKED AND WHEN

3.3.1 INPUT REQUIREMENTS

3.3.1.1 Planning for the work must include confirming and documenting the Input Requirements that must be met by, or used as the basis for, the professional engineering or professional geoscience work. Carrying out the professional engineering or professional geoscience work without a complete and confirmed set of Input Requirements may lead to costly rework or, in the worst case, a failure. The Record of these Input Requirements will also be used by the personnel performing the Checks to verify that the deliverable (output) meets the Input Requirements.

3.3.2 INPUT DATA

3.3.2.1 Engineering and geoscience involves Input Data that is used as the basis for developing the professional engineering or professional geoscience work. Input Data must be gathered and Checked to confirm that it is current, complete, accurate, suitable, and sufficient for the purposes for which it will

be used. Some examples of Checks of Input Data include:

- confirming that the government or industry standards being used are the most current;
- confirming that the geotechnical report includes relevant information appropriately located for the construction;
- Checking that materials used in a process have been tested and certified to meet Input Requirements;
- confirming that all inspection, measuring, surveying, and testing procedures that require a known accuracy have been performed using equipment calibrated to recognized standards; and
- Checking that a preliminary design to be used for detailed design has been approved by the client.

3.3.2.2 Input Data Checking does not mean recalculating or carrying out detailed Checks of work that is outside of the professional practice of the Professional Registrant, or that has been certified by a recognized authority. Once Input Data is incorporated into the professional engineering or professional geoscience work, the Professional of Record is confirming its suitability for their professional engineering or professional geoscience work.

3.3.3 DESIGN SOFTWARE

3.3.3.1 Calculations performed using design software or spreadsheets can only be as accurate as the software, spreadsheet, or Input Data used. Ideally, the software should be validated periodically by using it to perform a known design calculation, such as one included in a textbook exercise

or confirmed in past work. Alternatively, the software can be validated against a hand calculation. It is imperative to keep a Record or log of when the validation was last conducted, by whom, and what, if any, Corrective Action was needed.

3.3.4 ENGINEERING AND GEOSCIENCE WORK

3.3.4.1 Depending on the type, duration, and complexity of the professional engineering or professional geoscience work, Checks may occur periodically throughout the project or work, or at pre-defined stages.

3.3.4.2 Most structural designs will require an independent review. Refer to the Engineers and Geoscientists BC *Guide to the Standard for Documented Independent Review of Structural Designs* (Engineers and Geoscientists BC 2021a) for more information about these requirements.

3.3.4.3 Third party or independent review of the professional engineering or professional geoscience concept and deliverables may be necessary in other disciplines besides structural, before they are used for construction, implementation, or operations, especially when the work is identified as high risk. The decision to carry out independent reviews may arise from:

- legislative requirements;
- the complexity of the work;
- elements at risk;
- availability, quality, and reliability of background information and field data;
- client requirements;
- requirements of Engineers and Geoscientists BC professional practice guidelines and practice advisories; or
- the Professional Registrant's judgment, training, and experience.

3.3.4.4 Calculations used as the basis for the professional engineering or professional geoscience work should be independently Checked or, if acceptable in the opinion of the Professional Registrant and allowed in the Firm's Quality Control procedures, they may be self-Checked only.

3.3.4.5 Professional engineering or professional geoscience work that is prepared and delivered to others who will use and rely on it must be Checked and Authenticated by the Professional of Record.

3.3.5 TYPES OF CHECKS

3.3.5.1 Depending on the requirements of [paragraph 3.3.4.3](#) above, types of Checking may include:

- self-Check or Check by others of calculations;
- intra-disciplinary Checks to identify and solve any problems, and to verify that work prepared by any one discipline meets the Input Requirements;
- inter-disciplinary Checks to coordinate the work of several disciplines to identify and solve any problems, and verify that the work of all disciplines collectively meets the Input Requirements and does not conflict;
- revision Checks throughout the project or work, as the professional engineering or professional geoscience work is revised;
- Checks to confirm compliance with applicable codes, standards, regulations, and Bylaws;
- constructability or operational Checks to confirm that work can be constructed as shown or will operate as planned;

- health, safety, and environmental Checks to assure that the end product is safe in operation and will not have an inappropriate impact on the environment;
- verification to confirm that the completed work satisfies Input Requirements;
- validation to confirm that the professional engineering or professional geoscience work is capable of meeting its intended purpose and will perform under expected conditions;
- deliverable Checks to see that the work is represented clearly, consistently, completely, and professionally;
- Checks by an independent party to verify that the work satisfies the Input Requirements (commonly called peer reviews);
- testing or surveying of a process, installation, program, or product;
- third-party Checks for a stakeholder to confirm that the work satisfies their Input Requirements; and
- sub-consultant or supplier Checks to confirm that work prepared by the sub-consultant or supplier meets all Input Requirements and does not conflict with other work before it is incorporated into the design or used in the product.

3.3.6 DOCUMENTS AND DELIVERABLES

3.3.6.1 Professional engineering and professional geoscience work and deliverables that may need to be Checked include:

- proposals;
- agreements and contracts;
- drawings;
- specifications;
- reports;
- letters related to professional engineering or professional geoscience work; or
- other deliverables prepared and delivered that contain or represent professional engineering or professional geoscience work, including those related to manufacturing, high technology, computer software development, operations, and maintenance activities.

3.4 WHO IS QUALIFIED TO CHECK

3.4.1 Checks must be carried out by Professional Registrants, EITs, GITs, or other parties who are appropriately qualified. The supervising Professional Registrant may be the person performing the Check.

To be qualified, personnel conducting Checks must:

- have current expertise in the discipline and type of work being Checked;
- be sufficiently experienced and have the required knowledge to identify the elements to be Checked;
- understand the Checking process;
- have reviewed and understood all relevant Input Requirements;

- be objective;
- be thorough and diligent in Checking and recording observations, corrections, and Corrective Action; and
- be aware of any tools required to assist in the Checking.

3.4.2 Although personnel conducting Checks are not assuming professional responsibility for the work, the checkers will be responsible for the quality of Checks that they carry out.

3.5 HOW ARE CHECKS DOCUMENTED AND WHAT RECORDS ARE RETAINED

3.5.1 Checks must be documented and Records must be retained to confirm that a required Check has occurred. The Record must identify the project or work, the Professional of Record, the person performing the Check, the purpose of the Check, and the date the Checking occurred. The Documentation may include mark-ups of Checked work; records of equipment calibration if the Check involved using equipment for inspection, measurement, testing, surveying or similar purposes; completed forms or checklists; or emails or other communications documenting comments, corrections, and Corrective Action. Documentation may be in electronic or hard copy format.

3.5.2 Checklists and other tools act as reminders of aspects of the work that must be Checked. They can also be used as a Record that the Check occurred. Checklists and other tools may be developed based on the discipline, type of work, stage or phase of work, deliverable or product, or other content and structure suited to the Professional Registrant's work. Checklists

and other tools must never be used as a substitute for the professional judgment of the person designated to perform the Check.

- 3.5.3 As stated in the Engineers and Geoscientists BC *Guide to the Standard for Retention of Project Documentation* (Engineers and Geoscientists BC 2021b), retaining complete and easily retrievable project Records is critical to the professional practice of Professional Registrants. It allows for an orderly handoff from one project manager or other team member to another, even when the handoff is unexpected or on a short timeframe. By maintaining Records of Checks, a new Professional Registrant picking up the file will, after reviewing its content, be able to understand the status of the Checks that were carried out.

4.0 REFERENCES AND RELATED DOCUMENTS

Engineers and Geoscientists Regulation, OIC 2021/037.

Professional Governance Act, S.B.C. 2018, c. 47.

Engineers and Geoscientists BC. 2021a. Quality Management Guides – Guide to the Standard for Documented Independent Review of Structural Designs. Version 2.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2021 Feb 17]. <https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Standards>.

Engineers and Geoscientists BC. 2021b. Quality Management Guides – Guide to the Standard for Retention of Project Documentation. Version 2.0. Burnaby, BC: Engineers and Geoscientists BC. [accessed: 2021 Feb 17]. <https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Standards>.

