

GUIDE TO THE CODE OF ETHICS

VERSION 2.0
PUBLISHED MARCH 12, 2021



**ENGINEERS &
GEOSCIENTISTS**
BRITISH COLUMBIA

PREFACE

The foundation of any profession is the establishment of and adherence to ethical principles. Engineers and geoscientists working in Regulated Practice in British Columbia are expected to exhibit the highest standards of honesty and integrity and to hold paramount the safety, health, and welfare of the public, including the protection of the environment and the promotion of health and safety in the workplace.

The *Professional Governance Act*, S.B.C. 2018, c. 47. (the “*Act*”) governs the practices of professional engineering and professional geoscience in BC. The *Act* requires that Engineers and Geoscientists BC create a mandatory Code of Ethics in the Bylaws.

The Code of Ethics provides a set of ethical principles that all Registrants are required to follow. The Code of Ethics establishes ethical behaviour as the norm within the engineering and geoscience professions, articulates the standard of conduct expected of Registrants, and facilitates public protection by forming the basis for disciplinary action. These ethical principles are at the core of building and maintaining relationships of trust with colleagues, clients, government, and the public.

This *Guide to the Code of Ethics* outlines the principles of the Engineers and Geoscientists BC Code of Ethics and is intended to help guide Registrants understand and comply with their obligations.

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DEFINED TERMS

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

TERM	DEFINITION
<i>Act</i>	The <i>Professional Governance Act</i> , S.B.C. 2018, c. 47.
BC	The province of British Columbia.
Bylaws	The Bylaws of Engineers and Geoscientists BC.
Code of Ethics	The Code of Ethics of Engineers and Geoscientists BC set out in Schedule A of the Bylaws.
Engineers and Geoscientists BC	The Association of Professional Engineers and Geoscientists of the Province of British Columbia, also operating as Engineers and Geoscientists BC.
<i>Guide</i>	This <i>Guide to the Code of Ethics</i> .
Registrant	Registrant means an individual or firm, as applicable, that is registered with Engineers and Geoscientists BC in any category or subcategory of registrant in accordance with the Bylaws.
Regulated Practice and Reserved Practice	Regulated Practice and Reserved Practice have the meaning prescribed in the <i>Engineers and Geoscientists Regulation</i> , B.C. Reg. 14/2021.

VERSION HISTORY

VERSION NUMBER	PUBLISHED DATE	DESCRIPTION OF CHANGES
2.0	March 12, 2021	Reissued as the <i>Guide to the Code of Ethics</i> to align with the requirements of the <i>Professional Governance Act</i> and the current Bylaws.
1.0	January 1994	Initial version. issued as Appendix C to the Engineers and Geoscientists BC <i>Guidelines for Professional Excellence</i> (Code of Ethics Guidelines, Third Edition).

1.0 INTRODUCTION

1.1 PURPOSE

Ethical practice in the engineering and geoscience professions is extremely important, due to the nature of the work of Registrants and the potential for that work to have a significant impact on the public. Ethical practice helps prevent harm to the public, the environment, and the engineering and geoscience professions.

Registrants are held to a higher ethical standard because of the specialized skills and training required to become licensed. The public places their confidence and trust in the work of Registrants, and in exchange, the paramount ethical duty of Registrants in their work is to protect public health, safety, and welfare and prevent harm to the environment. This duty informs all other ethical considerations in the practice of professional engineering and geoscience. Registrants must not use their specialized knowledge in a manner that is contrary to the public interest.

The *Professional Governance Act* (the “*Act*”) governs the practices of professional engineering and professional geoscience in British Columbia. The *Act* requires that Engineers and Geoscientists BC create a mandatory Code of Ethics in the Bylaws.

The Code of Ethics establishes ethical behaviour as the norm within the engineering and geoscience professions¹, articulates the standard of conduct expected of Registrants, and facilitates public protection by forming the basis for disciplinary action.

1.2 BACKGROUND

In November 2018, the BC Government passed the *Professional Governance Act*, S.B.C. 2018, c. 47, which consolidates government oversight of the professional regulators for engineering, geoscience, forestry, agrology, applied science technology, and applied biology under a new Office of the Superintendent of Professional Governance. Most of the substantive sections of the Act came into force on February 5, 2021. The *Act* is a result of the government’s professional reliance review, which examined the former legislation governing qualified professionals in the natural resource sector, and the roles their professional regulatory bodies play in upholding the public interest.

Section 57(2) of the *Act* introduces a requirement for each professional regulator to include specific ethical principles in their respective codes of ethics. While many of the ethical principles previously included in the Engineers and Geoscientists BC Code of Ethics remain the same, other principles have been added to reflect the new requirements of the *Act*.

The content of this *Guide* is informed by results of the investigation and discipline process at Engineers and Geoscientists BC and by the regulatory experience gained in advising on standards of practice. This *Guide* forms part of Engineers and Geoscientists BC’s ongoing commitment to maintaining the quality of professional services that Registrants provide to their clients and the public.

2.0 APPLICABILITY

This *Guide* applies to all practising and non-practising Registrants of Engineers and Geoscientists BC. The obligations in the Code of Ethics are also binding

on Registrants in connection with work they engage in outside of BC.²

¹ Charles B. Fleddermann, *Engineering Ethics*, 4th ed (Prentice Hall: Upper Saddle River, 2012) at 25 [*Fleddermann*].

² *Legault v. Law Society of Upper Canada*, 1975 Carswell Ont 904 at 643 (Ont. C.A.); James T. Casey, *The Regulation of Professions in Canada* (Toronto: Thomson Reuters, 2019) at s. 4.1 [*Casey*].

3.0 THE CODE OF ETHICS

The Code of Ethics required under the *Act* and established in the Bylaws provides a set of principles that all Registrants are required to follow.³

CODE OF ETHICS

A registrant must adhere to the following Code of Ethics:

Registrants must act at all times with fairness, courtesy and good faith toward all persons with whom the registrant has professional dealings, and in accordance with the public interest. Registrants must uphold the values of truth, honesty and trustworthiness and safeguard human life and welfare and the environment. In keeping with these basic tenets, registrants must:

1. hold paramount the safety, health, and welfare of the public, including the protection of the environment and the promotion of health and safety in the workplace;
2. practice only in those fields where training and ability make the registrant professionally competent;
3. have regard for the common law and any applicable enactments, federal enactments or enactments of another province;
4. have regard for applicable standards, policies, plans and practices established by the government or EGBC;
5. maintain competence in relevant specializations, including advances in the regulated practice and relevant science;
6. provide accurate information in respect of qualifications and experience;
7. provide professional opinions that distinguish between facts, assumptions and opinions;
8. avoid situations and circumstances in which there is a real or perceived conflict of interest and ensure conflicts of interest, including perceived conflicts of interest, are properly disclosed and necessary measures are taken so a conflict of interest does not bias decisions or recommendations;
9. report to EGBC and, if applicable, any other appropriate authority, if the registrant, on reasonable and probable grounds, believes that:
 - a. the continued practice of a regulated practice by another registrant or other person, including firms and employers, might pose a risk of significant harm to the environment or to the health or safety of the public or a group of people; or
 - b. a registrant or another individual has made decisions or engaged in practices which may be illegal or unethical;
10. present clearly to employers and clients the possible consequences if professional decisions or judgments are overruled or disregarded;
11. clearly identify each registrant who has contributed professional work, including recommendations, reports, statements or opinions;
12. undertake work and documentation with due diligence and in accordance with any guidance developed to standardize professional documentation for the applicable profession; and
13. conduct themselves with fairness, courtesy and good faith towards clients, colleagues and others, give credit where it is due and accept, as well as give, honest and fair professional comment.

³ *Bylaws of Engineers and Geoscientists British Columbia, s. 7.2 [Bylaws].*

4.0 APPLYING THE CODE OF ETHICS IN PROFESSIONAL PRACTICE

This *Guide to the Code of Ethics* (“*Guide*”) is intended to help Registrants understand and apply the principles of the Code of Ethics. It is not intended to provide binding instructions for how to carry out professional activities in every situation, but instead provides an interpretive framework and outlines relevant considerations for Registrants to comply with the Code of Ethics. Failure to meet the requirements of the Code of Ethics, as interpreted in this *Guide*, could be evidence of “professional misconduct,” “conduct unbecoming a Registrant,” or “incompetence” and lead to disciplinary proceedings by Engineers and Geoscientists BC.⁴

However, neither the Code of Ethics nor this *Guide* covers all possible ethical situations Registrants are likely to encounter in their professional activities. Rather, the Code of Ethics provides guidance to support ethical judgment. The Code of Ethics does not establish new ethical principles, but instead, it reiterates principles and standards already accepted as responsible engineering and geoscience practice.⁵

4.1 ACT IN THE PUBLIC INTEREST [PRINCIPLE 1]

Registrants must hold paramount the safety, health, and welfare of the public, including the protection of the environment and the promotion of health and safety in the workplace.

KEY POINTS:

- a) The obligations imposed by Principle 1 of the Code of Ethics override all other obligations (i.e., to clients or employers) and supersede all other principles in the Code of Ethics.
- b) Registrants must honestly, fairly, and impartially consider the impacts of engineering and geoscience work on the public, environment, and workplace, to ensure negative impacts do not outweigh expected benefits.
- c) Registrants are responsible for having adequate knowledge of the potential impacts on the environment from their projects, in order to properly follow any precautions and develop necessary mitigative measures.
- d) All Registrants are responsible for promoting workplace safety and must adhere to any health and safety programs.
- e) Registrants who are owners, employers, or supervisors are responsible for ensuring individuals under their supervision have safe working conditions.

⁴ See definitions in *Professional Governance Act*, S.B.C. 2018, c. 47 at s. 1 [PGA].

⁵ *Fleddermann*, *supra* note 1.

4.1.1 HOLDING PARAMOUNT THE SAFETY, HEALTH, AND WELFARE OF THE PUBLIC

Registrants have a duty to hold paramount the safety, health, and welfare of the public. If Registrants find themselves in a situation where their duty under Principle 1 conflicts with another duty in the Code of Ethics, the duty to protect the public will override all others. To “hold paramount” in this context means to place ahead of other principles, and to rank ahead of both expediency and economic gain.

Registrants must consider the potential impacts of their work and not complete or authenticate any work that would cause harm to the safety, health, and welfare of the public.

Emerging engineering and geoscience can often be used for both beneficial and harmful purposes, the so-called dual dilemma.⁶ This may make it difficult for Registrants to identify when their work products present a danger to the public. Registrants must ensure that negative impacts on the public or the environment are limited and do not outweigh expected benefits.

Registrants may participate in projects and authenticate documents, as long as they are within the law and do not sacrifice public safety or the protection of the environment. If Registrants do not feel comfortable working on a project, despite it being legal, they may choose to participate or refrain from participating.

If Registrants become aware that their clients are not adequately protecting the health, safety, and welfare of the public, Registrants should attempt to remedy the situation. If they are unable to make improvements to the harmful situation, best practice encourages Registrants to remove themselves from the project so not to contribute to further harm.⁷ See [Section 4.9 Duty to Report \(Principle 9\)](#) in this *Guide* for more guidance on the duty to report.

⁶ Jayshree Pandya, “The Dual-Use Dilemma of Artificial Intelligence”, *Forbes* (7 January 2019).

⁷ Gordon C. Andrews, Patricia Shaw & John McPhee, *Canadian Professional Engineering and Geoscience Practice and Ethics*, 6th ed (Toronto: Nelson Education, 2019) at 290 [Andrews, Shaw & McPhee].

CASE EXAMPLE: FAILING TO COMPLY WITH BUILDING CODES

DESCRIPTION: A structural engineer admitted that the design of a high-rise residential tower in Surrey, BC did not comply with the 2006 *BC Building Code*, in particular with requirements regarding seismic and wind loads. As the registered professional responsible for the design of the building, the engineer had provided assurance that the building had been designed to the 2006 *BC Building Code*. During the Engineers and Geoscientists BC investigation and discipline process, the engineer admitted, among other charges, that they had failed to undertake the design process adequately, and that they had used requirements from the *National Building Code* 2010 that were less conservative than requirements in the 2006 *BC Building Code*, while they did not use other requirements of the same code that were more conservative. Further, the engineer admitted to having failed to ensure that an appropriate independent review of the design was completed.

For all contraventions collectively, this engineer was charged with professional misconduct. The engineer agreed to resign their membership, pay a fine of \$25,000, which is the maximum allowable under the former legislation, and pay \$215,000 towards legal costs.⁸

COMMENTARY: This Registrant admitted to having contravened Principle 1 of the Code of Ethics. The engineer had compromised the safety, health, and welfare of the residents of the high-rise residential tower by falsely certifying that the design adhered to requirements of the building code.

4.1.2 PROTECTING THE ENVIRONMENT

Many activities that involve engineering and geoscience affect or pose a risk of harm to the environment.⁹ Therefore, Registrants must consider the effect of their practice on the environment, while also taking into consideration societal needs and regulatory requirements like acceptable risk thresholds.

Where a project has potential to cause environmental harm, consideration should be given to involving an appropriately qualified environmental professional.

⁸ *APEGBC v. Bryson* (26 March 2019).

⁹ Gordon C. Andrews, *Canadian Professional Engineering and Geoscience: Practice and Ethics*, 5th ed (Toronto: Nelson Education Ltd, 2014) at 305 [Andrews].

Registrants are also responsible for having adequate knowledge of the possible environmental effects of their projects in order to properly follow any necessary precautions.¹⁰

Government regulations for the protection of the environment must always be followed, regardless of whether the resulting consequences are undesirable for clients (Principle 3 of the Code of Ethics). Registrants should also access information and resources produced by Engineers and Geoscientists BC to help incorporate environmental considerations into their practices, following guidance where applicable (Principle 4 of the Code of Ethics).¹¹ These resources include continuing education sessions, dedicated staff support, professional practice guidelines, which provide guidance for specific areas of practice, and specifically the *Professional Practice Guidelines – Sustainability*. Current versions of these materials are available on the Engineers and Geoscientists BC website, which also includes climate change-specific tools and resources listed in the Climate Change Information Portal.

A Registrant's obligation to protect the environment includes consideration for climate change, which means that Registrants are expected to consider any impact of their work on the climate. Engineers and Geoscientists BC has established position statements on climate change as well as a Council-approved Climate Change Action Plan that commits the regulatory body to providing support for Registrants. Registrants should be knowledgeable of the relevant resources related to climate change that are available on the website of Engineers and Geoscientists BC.

Because adaption to climate change will likely require modifications to standards, codes, and related instruments in order to address climate resiliency requirements, Registrants must stay current in science-based, knowledge-driven, and risk-based approaches to

better incorporate the best available climate science into professional decisions.¹²

When considering risk factors, Registrants may encounter circumstances where climate change poses risks to a design or to future building safety or function. Registrants then have a responsibility to notify the client of those risks, propose reasonable design or adaptive measures to manage those risks, and communicate the potential impacts of refusing to implement these recommended measures.

CASE EXAMPLE: FALSIFYING SOIL TESTING DATA

DESCRIPTION: A geoscientist knowingly submitted falsified soil testing data on behalf of a meat-processing company to Alberta Environment and Parks in the 2015 Annual Industrial Wastewater, Industrial Runoff and Waste Management Report. The geoscientist substituted soil testing data completed in 2013 for data completed in 2015, falsely showing that parameters had not been exceeded, so that the client could continue to discharge wastewater. If current and accurate soil testing data had been reported, Alberta Environment and Parks would have precluded the meat-processing company from continuing to discharge wastewater on the land.

This geoscientist was convicted of violating the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c-E12, sanctioned by the Association of Professional Engineers and Geoscientists of Alberta (APEGA) and Engineers and Geoscientists BC.¹³

Engineers and Geoscientists BC suspended the geoscientist's membership for two years, with reinstatement conditional upon completion of courses, exams, and a successful general practice review. Despite having already paid fines to APEGA, the geoscientist was required to pay over \$20,000 towards Engineers and Geoscientists BC's legal costs.¹⁴

COMMENTARY: In this example, the Registrant placed the client's interests above the protection of the environment to the extent that it required falsification of data. This dishonest conduct disregarded environmental concerns and jeopardized the local ecosystem. The Registrant should have respected the parameters set by Alberta Environment and Parks, regardless of resulting in undesirable consequences for the client.

¹⁰ *Ibid* at 306.

¹¹ *Ibid* at 307.

¹² Canada's Climate Change Adaption Platform's Buildings and Infrastructure Working Group, *National Infrastructure and Buildings Climate Change Adaption State of Play Report* (Burlington: Amec Foster Wheeler and Credit Valley Conservation, March 2017) at 4.

¹³ *APEGBC v. Rogers – Determination of the Discipline Committee* (9 December 2019).

¹⁴ *APEGBC v. Roger – Decision and Order of the Discipline Committee on Penalty and Costs* (23 March 2020).

4.1.3 PROMOTING HEALTH AND SAFETY IN THE WORKPLACE

Registrants must exercise diligent care and attention to promote health and safety in the workplace. A knowledgeable workplace culture promotes open discussions about safety and engages workers at all levels in the effort to create a healthy and safe workplace.

Many Registrants will work in the field at project sites where the increased risk of physical injury makes following safety procedures particularly important. Registrants must be aware of potential hazards, follow safe work procedures, and wear appropriate personal protective equipment.¹⁵

Registrants who are owners, employers, or supervisors are responsible for ensuring individuals under their supervision have safe working conditions, are taking the proper precautions, and have received sufficient training in order to complete their work safely.¹⁶

The Code of Ethics holds Registrants to a high standard with respect to ensuring safety. If Registrants are ever asked to ignore safety concerns to avoid delay or reduce costs for a client, Registrants should refuse and always hold paramount their ethical obligations. Registrants must also observe their duty under Principle 9 of the Code of Ethics, which requires them to report to Engineers and Geoscientists BC or another appropriate authority any hazardous practices that pose a significant risk of harm to the environment or to the health or safety of the public.

CASE EXAMPLE: PROVIDING INADEQUATE SITE SAFETY INSTRUCTIONS

DESCRIPTION: An engineer authenticated site instructions for an excavation project at a residential property in Kamloops, BC, as required by section 20.78 of the *Occupational Health and Safety Regulation*, BC Reg. 143/2017. During the investigation and discipline process, the engineer admitted that the site instructions were inadequate.

The site instructions failed to include clearly written descriptions regarding the embankments surrounding the excavations, their geology and soil conditions, the consequences of their failure, and any information about the concrete lock blocks on their perimeters. The engineer did not adequately investigate, assess, and perform calculations as to the stability of the embankments and concrete lock blocks.

This engineer also failed to include instructions for workers proximal to the excavation, including any limitations for the use of machinery or equipment nearby. They also neglected to address the influence of changing weather conditions on the excavation project, and the necessary precautions to be taken in response.

As a result, the engineer agreed that their membership with Engineers and Geoscientists BC would be cancelled, and that they would pay \$5,000 towards Engineers and Geoscientist BC's investigation and legal costs.¹⁷

COMMENTARY: This Registrant was responsible for ensuring workers on the excavation site were aware of the possibility and consequences of embankment failure and the necessary safety precautions to be taken. Workers often rely on the expert advice of Registrants to define risks and ensure safety on project sites. Workplace health and safety are of utmost importance, and Principle 1 of the Code of Ethics requires diligent care to ensure it is maintained.

¹⁵ WorkSafeBC, "[Roles, Rights & Responsibilities](#)".

¹⁶ *Employment Standards Act*, R.S.B.C. 1996, c. 113.

¹⁷ *APEGBC v. Tschepp* (4 September 2019).

4.2 KNOW YOUR LIMITS (PRINCIPLE 2)

Registrants must practice only in those fields where training and ability make the Registrant professionally competent.

KEY POINTS:

- a) Registrants must never authenticate plans, specifications, reports, letters of assurance, or other documents that are either outside of their area of expertise or prepared by others not under their direct supervision, unless in accordance with the Engineers and Geoscientists BC *Guide to the Standard for Authentication of Documents*.
- b) Client pressure or an intention to save clients money are not valid reasons to authenticate documents outside a Registrant's area of expertise.
- c) Registrants must fully understand the scope of services they are being asked to undertake, be aware and honest with themselves about their limitations, and be quick to acknowledge and state the limits of their training and experience when accepting responsibility for assignments.
- d) Registrants with the designations of Professional Licensee Engineering and Professional Licensee Geoscience must know and respect the limits of their authorized area of practice.
- e) Where assignments go beyond a Registrant's competence or expertise, Registrants should engage experts in those areas to fill in the gap in the Registrant's expertise.
- f) Registrants must respect the expertise required by other professions, disciplines, and practice areas, and must not assume that such work can be undertaken without the requisite education, training, and experience.

Registrants should always be aware of and accept the limits of their training and experience when assuming responsibility for assignments and should carefully restrict their practice in accordance with their knowledge and experience.

Registrants must not undertake assignments unless qualified by training and experience. Therefore, before accepting assignments, Registrants should obtain adequate information to fully understand the scope of services being requested.

A Registrant who accepts and carries out a task for which the Registrant lacks the required competence not only poses a risk of harm to clients and the public, but also puts themselves in a compromising position. When faced with technical or difficult questions, Registrants lacking competency in the topic should resist any possible temptation to guess and make poor decisions. Registrants are ethically required to acknowledge their limitations, practice only within areas of expertise, and never exaggerate knowledge or ability.

Limiting practice to areas of competence does not mean Registrants must be competent in every aspect of a project in order to accept it. If Registrants do not have—and cannot properly acquire—the competence to undertake a specific project or portion of a project, they should consult with and engage the services of other professionals or individuals who are competent in those areas.

Registrants may only authenticate plans, specifications, or reports that they prepared themselves, or were prepared under their direct supervision, unless in accordance with the Engineers and Geoscientists BC *Guide to the Standard for Authentication of Documents*, which allows for authenticating documents with limited prior involvement in certain circumstances.

Unless they are registered in both categories, Professional Engineers must not practice geoscience, and Professional Geoscientists must not practice engineering. Registrants must also recognize differences among the various engineering and geoscience disciplines. Due to the variation of work

within disciplines, it is impossible for a Registrant to have expertise in every area. Competence in an area of engineering or geoscience requires a sufficient level of training and/or experience in that field. Registrants must self-declare areas of practice as part of their annual renewal process. See [Section 4.6 State Qualifications Accurately \(Principle 6\)](#) for more information.

Registrants who fall into the categories of Professional Licensee Engineering (P.L.Eng.) or Professional Licensee Geoscience (P.L.Geo.) may only practice within the authorized area of practice specified in their licence. It is important that licensees know and respect the limits of their practices.

CASE EXAMPLE: WORKING IN A DISCIPLINE OUTSIDE REGISTRANT COMPETENCE

DESCRIPTION: Among other allegations, a mechanical engineer provided designs for glass guardrails on multiple projects, despite not being qualified as a structural engineer. Engineers and Geoscientists BC received complaints about this engineer's work, including that they failed to include critical design detail information on shop drawings for the guardrails and failed to perform critical design calculations and design checks. The engineer also authenticated shop drawings and issued a letter of assurance to the client in circumstances where the engineer did not, and by virtue of their training and experience could not, conduct an adequate review of professional work related to the guardrails.

The engineer admitted all of the allegations and agreed to a two-month suspension of their membership and a prohibition on performing structural engineering work in the future. The engineer also agreed to pay a fine of \$5,000 as well as \$10,000 towards Engineers and Geoscientists BC's legal costs.¹⁸

COMMENTARY: This Registrant's mechanical engineering experience did not make them sufficiently competent to complete the structural design and analysis of the glass guardrails. In order to comply with Principle 2 of the Code of Ethics, the Registrant should have acknowledged that they lacked the expertise to complete these designs and either refrained from accepting this project or ensured that an independent professional structural engineer took over responsibility for the glass guardrails.

See also [Appendix C1 Case Examples: Know Your Limits \(Principle 2\)](#) for additional examples:

- Case Example: Inadequate Analysis and Inappropriate Techniques
- Case Example: Incompetent in Standard Industry Practices

4.3 FOLLOW THE LAW (PRINCIPLE 3)

Registrants must have regard for the common law and any applicable enactments, federal enactments or enactments of another province.

KEY POINTS:

- a) Registrants must be aware of and carefully consider the common law and applicable enactments in the jurisdictions where their projects will be constructed or implemented before carrying out engineering or geoscience work.
- b) Applicable common law and enactments are binding upon Registrants, regardless of whether registrants are aware of them. If Registrants breach the law, they may face civil liability or criminal prosecution.
- c) Registrants should develop an understanding of how to apply and stay current with enactments (i.e., building codes, bylaws, regulations) that typically apply to their work. Registrants can also attend seminars and subscribe to updates, professional publications, and other communications that advise of relevant changes.
- d) Enactments and the common law outline the minimum standard for professional work. Clients and employers often expect delivery of a standard that goes further.

¹⁸ [APEGBC v. Proctor](#) (5 April 2017).

4.3.1 “HAVE REGARD FOR” LAWS AND ENACTMENTS

Registrants must understand and follow all laws that apply to their work, including local enactments and other laws in jurisdictions where their projects are being constructed or implemented. The common law and many government enactments play an important role in the practice of engineering and geoscience.

Being unaware of applicable common law or enactments does not typically prevent the legal obligations they establish from applying to a Registrant. If legal obligations are not complied with, Registrants could be subject to discipline by Engineers and Geoscientists BC and may face civil liability or criminal prosecution.

Some laws may not be directly applicable to a Registrant (for example, enactments in other jurisdictions where a Registrant does not practice). Registrants are not obligated to follow law that does not apply to them. However, laws that do not directly apply to a Registrant may nevertheless be a source of guidance on best practices, so Registrants should consider whether their other obligations under the Code of Ethics dictate adopting practices that they may not be legally obligated to follow on the basis of common law or applicable enactments alone.

In other contexts, the term “have regard for” has been interpreted to mean “to consider [it] carefully at hand, their objectives, and the statements as a whole, and what they seek to protect.”¹⁹ In the context of the Code of Ethics requirements, Registrants must consider the law carefully and apply their professional judgment to determine whether the principles contained in non-binding laws are applicable to a given situation.

The Code of Ethics does not impose an obligation for Registrants to know every single enactment or common law decision. However, Registrants are expected to be aware of the law, including the common law, that is relevant or applicable to their work.

Registrants should subscribe to updates, professional publications, and other communications that advise of legal changes that may affect their work. However, legislation and the common law may only outline the minimum standard for engineering and geoscience work and registrants are expected to exceed any minimum standards where it is appropriate to do so in their professional judgment.

The following sections provide examples of common law and government enactments that Registrants should have regard for. The examples help to illustrate the relevance and usefulness of various laws for the day-to-day work and considerations of Registrants.

4.3.2 COMMON LAW

The common law, often referred to as judge-made law, is a body of legal rules created by judges as they decide various cases, including adjudicating civil disputes between private parties and interpreting the meaning of enactments passed by the government. The common law establishes the basic standards of conduct expected of professionals licensed under a regulatory body. The common law is always in flux as new cases set new precedents. Registrants can look at decisions of the courts to see how enactments in their field are being interpreted and applied.

The common law also establishes general principles that apply to professional regulators such as Engineers and Geoscientists BC, including the principles that regulatory bodies use to determine when a registrant may have breached the *Professional Governance Act*. The *Professional Governance Act* contains the following definitions, which have not yet been interpreted by the Discipline Committee or the courts:

- “conduct unbecoming a registrant” means conduct of a registrant that
 - a) brings the regulatory body or its registrants into disrepute,

¹⁹ Dennis H. Wood, “The Planning Act: Bill 51. What’s New, What Remains, What You Must Know – Part II. “Have Regard To”, “Shall be Consistent with”, and “Shall Conform With”: When do they apply and

how to apply them?” (Toronto: Municipal, Planning and Development Law, 2007) at 12.

- b) undermines the standards, methods or principles that are the foundation of the profession, or
- c) undermines the principle of holding paramount the safety, health, and welfare of the public, including the protection of the environment and the promotion of health and safety in the workplace in the manner that reflects the stewardship of a given profession by each regulatory body;
- “professional misconduct,” means misconduct by a registrant as a professional, relating to the performance of duties while engaged in a regulated practice, including a failure to comply with, or a breach of, this Act, the regulations, or the bylaws;
- “incompetent,” in relation to the performance of duties undertaken while engaged in a regulated practice, includes
 - a) a lack of competence or fitness to engage in the regulated practice, or
 - b) an incapacity or impairment that prevents a registrant from engaging in the regulated practice with reasonable skill, competence, and safety to the public.²⁰

4.3.3 ENACTMENTS

Enactments are laws that are passed by the government in the form of statutes or regulations. The words “enactments/legislation/statutes” all mean law created by the government. “Regulations” are generally more specific laws that are passed pursuant certain legislation. The following sections discuss the types of government enactments that are likely to affect the practice of engineering and geoscience. Many more categories of enactments may be relevant to Registrants and cannot all be listed here. Registrants are encouraged to research governing legislation in

their field using the Justice Laws website for federal enactments and the BC Laws website for provincial enactments.²¹

4.3.3.1 Demand-Side Legislation

Demand-side legislation refers to government enactments and regulations which contain clauses that require engineers or geoscientists to certify that projects or works meet a specified standard for the protection of public safety.²² The required use and engagement of engineering and geoscience professionals is referenced within numerous enactments and regulations created by all levels of government in Canada, including, but not limited to, the *Public Safety Act*, 2002, S.C. 2004, c. 15, *Mines Act*, R.S.B.C. 1996, c. 293, *Forest Planning and Practices Regulation*, BC Reg. 14/2004, and *Homeowner Protection Act Regulation*, BC Reg. 29/99.

Registrants must be aware of relevant demand-side legislation and their required role on projects subject to such requirements.

4.3.3.2 Design Liability and Legislation

If a project developed by a Registrant causes injury, damage, or loss, the Registrant may be held liable. In order to reduce the risk of civil or criminal liability, Registrants should analyze and/or reasonably eliminate hazards, follow design codes, and be aware of safety regulations.²³

In order to avoid liability, Registrants working on project designs should complete and save a risk assessment for every design. This is a systematic design review that identifies all hazards, and demonstrates steps taken to eliminate, shield users from, warn about, and remedy any potential hazards.²⁴

Registrants should not rely solely on their firm’s standards or textbooks, but instead should actively search out relevant codes, standards, and safety

²⁰ *PGA*, *supra* note 4 at s. 1.

²¹ *Justice Laws Website*, Government of Canada; *BC Laws: Public Statutes and Regulations*, Government of British Columbia.

²² “*Demand Side Legislation – OHS Regulations*” (December 2014), Professional Engineers and Geoscientists of Newfoundland & Labrador [*Demand Side Legislation*].

²³ *Andrews*, *supra* note 9 at 127.

²⁴ *Ibid.* at 137.

regulations before beginning projects. Any deviation from applicable codes taken in a design must be explained in a written analysis and/or convincing calculations.²⁵ Design codes are typically viewed as a minimum standard and professional judgment should be exercised to ensure that the health of workers and the public is protected from undue risk.

4.3.3.3 Environmental Law

Any actions undertaken by Registrants in their professional practice that affect the environment must be accompanied by knowledge of the law and adherence to it.²⁶ Environmental laws and regulations have been enacted by every level of government in Canada and can be found online. They include, but are not limited to the following:

- a) Federal enactments, such as
 - i. the *Canadian Environmental Protection Act*, S.C. 1999, c. 33 [*CEPA*] which is mainly aimed at preventing pollution and contains offences punishable by fine and/or imprisonment;
 - ii. the *Fisheries Act*, R.S.C. 1985, c. F-14 which also protects the environment by prohibiting activities that may degrade fish habitats, including the release of harmful substances;
 - iii. *Species at Risk Act*, S.C. 2002, c. 29 [*SARA*] which provides a series of measures to protect wildlife species, provide for recovery of species who are extirpated, endangered, or threatened as a result of human activity, and to manage species of special concern;
 - iv. the *Impact Assessment Act*, S.C. 2019, c. 28, s.1 which lays out the process for impact assessment and the prevention of significant adverse environmental effects.

- b) Provincial enactments, such as
 - v. the *Environmental Management Act*, S.B.C. 2003, c. 53 [*EMA*] which regulates things such as waste discharge, contaminated site remediation, and pollution, and requires compliance and permits from all projects undertaken in BC;
 - vi. the *Wildlife Act*, R.S.B.C. 1996, c.488 which protects vertebrate animals from harm and may be used to authorize direct management of wildlife where necessary;
 - vii. the *Riparian Areas Protection Regulation*, S.B.C. 1997, c.21 [*RAPR*] which governs certain developments along riparian areas;
 - viii. *Contaminated Sites Regulation*, B.C. Reg. 375/96 which establishes criteria for remediating contaminated sites;
 - ix. the *Oil and Gas Activities Act*, S.B.C. 2008, c.36;
 - x. the *Water Sustainability Act*, S.B.C. 2014, c. 15 and the *Water Protection Act*, R.S.B.C. 1996, c. 484, which manage the use of water resources to ensure a sustainable supply of clean water for current and future BC residents.
- c) Municipal and regional district bylaws specific to each community.²⁷

4.3.3.4 Occupational Health and Safety Legislation

Section 217.1 of the *Canadian Criminal Code* imposes criminal penalties for workplace safety violations that result in injury or death.²⁸

The Canadian Centre for Occupational Health and Safety, a federal agency, has a website with information that can help Registrants make sense of the vast amount of health and safety legislation.²⁹

²⁵ *Ibid.* at 134.

²⁶ *Ibid.* at 307.

²⁷ *Community Charter*, S.B.C. 2003, c. 26, at ss.9, 47-52; *Local Government Act*, R.S.B.C. 2015, c.1, ss. 303-322, 327, 523-527, 551-557, 638-644.

²⁸ *Criminal Code*, R.S.C. 1985, c. C-46, s. 217.1 [*Criminal Code*].

²⁹ See Canadian Centre for Occupational Health and Safety, cchohs.ca/.

In addition, Registrants responsible for administering occupational health and safety legislation should familiarize themselves with the relevant provisions of the *Occupational Health and Safety Regulation*, B.C. Reg. 296/97, including safe work procedures and required personal protective equipment. Registrants should refer to WorkSafeBC’s website for additional information and resources relating to promoting and maintaining workplace safety.³⁰

See also [Section 4.1 Act in the Public Interest \(Principle 1\)](#) for additional guidance on promoting health and safety in the workplace.

4.3.3.5 Legislated Obligation to Inform of Risks

Section 25 of the *Freedom of Information and Protection of Privacy Act*, R.S.B.C. 1996, c. 165 [*FIPPA*] requires that someone who is “the head of a public body” must “without delay, disclose to the public, to an affected group of people or to an applicant” the following types of information:

- a) Information that is “about a risk of significant harm to the environment or to the health or safety of the public or a group of people”; and
- b) Information that “the disclosure of which is, for any other reason, clearly in the public interest”.³¹

Therefore, if a Registrant is the head of a public body, they must ensure that the public body complies with the requirements of *FIPPA*. If Registrants work for a public body, they must inform the body’s head of any information to which section 25 of *FIPPA* would apply, so the public can be alerted.

See [Appendix C2 Case Examples: Follow the Law \(Principle 3\)](#) for the following example:

- Case Example: Failing to Disclose Information to the Public About a Risk of Harm

4.3.3.6 Dealing with Corrupt Practices

Several laws have been enacted to protect the integrity of the bidding process, including the *Criminal Code of Canada*, R.S.C. 1985, c. C-46 [*Criminal Code*], the *Competition Act*, R.S.C. 1985, c. C-34 [*Competition Act*], and the *Corruption of Foreign Public Officials Act*, S.C. 1998, c. 34 [*CFPOA*].³² These laws prevent unfair influence or favouritism in the tendering process for public projects.

The *CFPOA* specifically deals with offences related to bribing foreign officials and covers any type of business activity or offer.³³ The *Criminal Code* pursues corruption offences related to both public and private projects, such as extortion and paying secret commissions.³⁴ The *Competition Act* encourages healthy competition and prohibits any sign of collusion.³⁵ Additional provincial and municipal laws, regulations or rules may contain other requirements for competitive processes and are worth consulting for industry-specific provisions.

Certain conduct is clearly prohibited, such as coercion, threats, and intimidation; however, some offers of gratuities are less clear.³⁶ See [Section 4.8 No Conflicts of Interest \(Principle 8\)](#) for more information on acceptable versus unacceptable gifts and other conflicts of interest, and [Section 4.13 Do Unto Others \(Principle 13\)](#) for discussion of the tendering process.

³⁰ See WorkSafeBC, “[Create & Manage a Healthy & Safe Workplace](#)” [*Create & Manage*].

³¹ *Freedom of Information and Protection of Privacy Act*, R.S.B.C. 1996, c. 165, ss. 25(1), Schedule 1 [*FIPPA*].

³² Brian M. Samuels and Doug R. Sanders, *Practical Guide to Ethics and Professional Practice for Engineers and Geoscientists* (North York, ON: Pearson Canada, forthcoming), at 43-44 at 84 [*Samuels*].

³³ *Corruption of Foreign Public Officials Act*, S.C. 1998, c. 34, at ss. 2, 3(2).

³⁴ *Criminal Code*, *supra* note 28 at ss. 120-123, 346, 426.

³⁵ *Competition Act*, R.S.C. 1985, c. C-34, ss. 45-47.

³⁶ *Samuels*, *supra* note 32 at 85.

4.4 FOLLOW THE STANDARDS OF GOVERNMENT OR ENGINEERS AND GEOSCIENTISTS BC (PRINCIPLE 4)

Registrants must have regard for applicable standards, policies, plans, and practices established by the government or Engineers and Geoscientists BC.

KEY POINTS:

- a) Registrants should carefully consider and understand any applicable standards, policies, plans, and practices relevant to their work.
- b) Registrants must be familiar with the various Engineers and Geoscientists BC publications that set out standards of practice, and they must understand how those standards apply to their own practice areas.
- c) Registrants should stay current with respect to changes in publications and standards by receiving regular communications from Engineers and Geoscientists BC and periodically reviewing the publications listed online.
- d) Registrants should increase their understanding of how to apply standards, guidelines, and other guidance by attending webinars, seminars, and conferences.
- e) Registrants must fully cooperate with investigations, including answering questions, producing requested information, and complying with any disciplinary conditions put in place.
- f) Registrants must have regard for the standards, policies, plans, and practices imposed by regulatory bodies in the other jurisdictions in which they work.

4.4.1 UNDERSTANDING STANDARDS, POLICIES, PLANS, AND PRACTICES

Principle 4 of the Code of Ethics expects Registrants to have regard for applicable standards, policies, plans, and practices. See [Section 4.3 Follow the Law \(Principle 3\)](#) for discussion of the meaning of “have regard for”.

The government may issue policies or guidance to clarify certain requirements in legislation. Examples include Guidance on Health, Safety and Reclamation Code for Mines in British Columbia³⁷ and Technical Guidance on Contaminated Sites³⁸.

Engineers and Geoscientists BC has a mandate to establish, monitor, and enforce standards for the qualifications and practice of Registrants. Registration is only granted to applicants who have sufficiently broad-based competency in and understanding of Engineers and Geoscientists BC publications related to their areas of practice. The Bylaws set the Standards of Competence,³⁹ which detail quality management requirements (see [subsection 4.4.2](#)). Engineers and Geoscientists BC also publishes Professional Practice Guidelines, Practice Advisories and Guides, as well as other documents and online resources (see [subsection 4.4.2](#)).

If new standards are introduced after a project has begun but before its completion, whether the project needs to be updated to meet the new standards and codes will be situation-specific. Specifically, it will depend on a multitude of factors, including how close to completion the project is, the type of potential changes that would need to be made to comply with the new standards, and whether the new standards contain transition provisions to assist with the application of amendments to projects already in progress. If a redesign is required, the question of who will cover the cost will likely depend on contractual terms with the client. Registrants should make efforts to be explicit about the standards that apply to each project they undertake, so that subsequent changes to this baseline can be traced and managed using proper change management principles and processes.

³⁷ *Guidance Document – Health, Safety and Reclamation Code for Mines in British Columbia*, version 1, 2016.

³⁸ Ministry of Environment and Climate Change Strategy, *Technical Guidance on Contaminated Sites – Supplemental Guidance for Risk Assessments*, version 5, 2017.

³⁹ *Bylaws supra* note 3 at s. 7.3.

4.4.2 ENGINEERS AND GEOSCIENTISTS BC STANDARDS

Engineers and Geoscientists BC publishes documents in four broad categories intended to help Registrants meet the expected standards of practice: quality management requirements, professional practice guidelines, practice advisories, and guides.

- a) **Quality management requirements** are the standards of competence established in the Bylaws. They set out the standards for quality management in professional activities and represent minimum standards of practice, conduct, and competence expected from Registrants. These standards include *Standard for Use of Professional Practice Guidelines, Standard for Retention and Preservation of Complete Project Documentation, Standard for Field Reviews, Standard for Checks*, etc.⁴⁰
- b) **Professional practice guidelines** set the minimum standards of practice, competence, and conduct expected from Registrants engaged in the relevant activities. These guidelines generally relate to a specific type of activity (e.g., retaining wall design) and Registrants engaged in those activities must “stay informed of, knowledgeable about, and meet the intent of” professional practice guidelines that are relevant to the Registrant’s professional activities or services”.⁴¹ However, Registrants may depart from these guidelines for appropriate reasons, which must be documented in writing as required under the Bylaws.⁴² These guidelines are publicly accessible on the Engineers and Geoscientists BC website and are regularly updated.
- c) **Practice advisories** inform Registrants of changes to standards of practice, which may result from new legislation or updating

commonly used standards. They also address issues around public safety, environmental concerns, and other shifts in certain professional practice topics that are time-sensitive issues. Practice advisories are similar in content to professional practice guidelines, but are generally narrower in scope, are much shorter than guidelines, and address practice issues in a more timely manner than lengthy guidelines may allow.

- d) **Guides** serve as manuals or reference documents for specific Engineers and Geoscientists BC programs, standards, or requirements, and include guides to the quality management requirements,⁴³ the *Guide to the Continuing Education Program* and this *Guide to the Code of Ethics*. They can be used as interpretive documents to assist Registrants in meeting standards of conduct and competence.

For more details on the standards of conduct and competence in each of these areas, consult the Bylaws and the Engineers and Geoscientists BC website.⁴⁴ See also [Section 6.0 Related Documents](#).

4.4.3 STANDARDS, POLICIES, PLANS, AND PRACTICES IN OTHER JURISDICTIONS

Registrants must be aware of, have regard for and follow the standards, policies, plans, and practices of the regulatory bodies in the jurisdictions in which they work. Registrants who disregard or violate standards, policies, plans, or practices are not only subject to disciplinary processes by those regulatory bodies. If Engineers and Geoscientists BC becomes aware of disciplinary action taken against a Registrant in another jurisdiction, the Discipline Committee of Engineers and Geoscientists BC will likely also review the Registrant’s conduct.⁴⁵ This may result in multiple disciplinary proceedings.

⁴⁰ *Bylaws*, *supra* note 3 at s. 7.3.

⁴¹ *Ibid.* at s. 7.3.1(2)(a).

⁴² *Ibid.* at s. 7.3.1(2)(b).

⁴³ See the website of Engineers and Geoscientists BC for all [Quality Management Guides](#).

⁴⁴ *Ibid.* at s. 7.2.

⁴⁵ *PGA*, *supra* note 4 at s. 76.

4.5 MAINTAIN YOUR COMPETENCE (PRINCIPLE 5)

Registrants must maintain competence in relevant specializations, including advances in the Regulated Practice and relevant science.

KEY POINTS:

- a) The *Act* makes continuing education mandatory for engineers and geoscientists registered to practice in BC.
- b) For Registrants to remain competent in their practice areas and advance in their careers, they must constantly stay informed, advance their knowledge, and upgrade their competency and skills.
- c) Registrants can maintain competency by engaging in the four areas of learning—technical, ethical, regulatory, and communications and leadership—through a combination of activities such as taking courses at educational training institutions, attending conferences, conducting research projects, participating in committees, collaborating with colleagues, engaging in self-directed study, and joining professional and technical societies.
- d) Firms are required to support their Registrants to meet the requirements of the Engineers and Geoscientists BC Continuing Education Program.
- e) Registrants acting in managerial roles should enable and assist their employees with staying informed and up to date, while also ensuring work is being performed by qualified professionals.
- f) Registrants should contribute to the professional growth of trainees by providing thoughtful supervision, engagement in discussion, opportunities for trainees to stretch their skills, teaching, and constructive feedback.
- g) Registrants have a duty to attain and maintain competence in all areas of involvement, including technologically driven or individually motivated shifts in an area of technical activity.

The requirement to hold public safety paramount in Principle 1 of the Code of Ethics necessitates that Registrants have the competence to safely and effectively complete all tasks they undertake. Registrants have a responsibility to remain informed of developments in their areas of expertise throughout their careers. This includes maintaining current knowledge and understanding of scientific advancements, best practice standards, and regulatory changes. Because engineering and geoscience practice areas and supporting science are constantly changing, Registrants are also responsible for maintaining competence in developments related to new technologies.

See [Appendix C3 Case Examples: Maintain Your Competence \(Principle 5\)](#) for the following example:

- Case Example: Unaware of Industry Standards

4.5.1 PROFESSIONAL GROWTH

Maintenance of high levels of professional competence is achieved by continually upgrading skills and knowledge. Registrants are encouraged to engage in learning—by whatever means—that helps them fulfill present or future roles more effectively, maintain sufficiently high standards of professional competence, and remain current in a competitive job market.

Learning can take many different forms, such as taking courses at educational training institutions, attending conferences and seminars, conducting research projects, participating in committees, collaborating with colleagues, and engaging in self-directed study. Registrants may make personal commitments to tackle new challenges and learn new skills through their own work, provided that successful and competent completion of assignments is not jeopardized and honesty with clients and employers is maintained.

Registrants may also contribute to the learning of others by giving presentations and by publishing papers in professional journals. Participating in professional and technical societies is another opportunity for Registrants to support the profession as a whole and work to maintain competence, development, and professional stature.⁴⁶

4.5.1.1 Continuing Education Program

In addition to the general obligations under this principle of the Code of Ethics, the *Act* requires that Engineers and Geoscientists BC “establish and maintain a continuing competency program to promote high standards among Registrants”, mandating that Registrants undertake continuing education in order to maintain their competence.⁴⁷

The Engineers and Geoscientists BC Continuing Education Program (CEP)⁴⁸ sets out four areas of competence: technical, ethical, regulatory, and communications and leadership.⁴⁹ Registrants must maintain their ethical and regulatory competence and, depending on their role, must also maintain technical and/or communication and leadership competence.⁵⁰ The Bylaws require Registrants to record their continuing education activities every year, beginning in July 2021.⁵¹

The CEP focuses on maintaining competency in each Registrant’s area of practice. See the Engineers and Geoscientists BC *Guide to the Continuing Education Program* for guidance on how Registrants can meet their obligations to stay current and align with new requirements. This also reinforces knowledge in technical, ethical, and regulatory areas, which supports the protection of the public and the environment.

4.5.1.2 Ethical Responsibility of Firms

Firms and Registrants in management positions should encourage, enable, and assist employees with maintaining their competence. Firms are required by the Bylaws to provide ample opportunity for associates and trainees to participate in continuing education and workshops, classes, and webinars relevant to their practice area.⁵² If employees are denied opportunities to develop professionally, they may be able to seek recourse through Engineers and Geoscientists BC.

See the Engineers and Geoscientists BC *Regulation of Firms Permit to Practice Manual* for more information on the duties of firms and employers.

4.5.1.3 Trainees

Trainees should be assisted in their professional advancement and competency by being provided with thoughtful supervision, engagement in discussion, teaching, and constructive feedback. Managers should attempt to expose trainees to a wide variety of experiences and encourage participation in continuing education activities, including seminars, conferences, and presentations.

Trainees should also be encouraged to register as trainees with Engineers and Geoscientists BC to increase their access to mentorship and training opportunities, and then be encouraged to apply for professional registration with Engineers and Geoscientists BC once they demonstrate adequate qualifications.

⁴⁶ *Samuels, supra* note 32 at 102.

⁴⁷ *PGA, supra* note 4 at s. 22.

⁴⁸ *Bylaws, supra* note 3 at s. 7.6.16; Engineers and Geoscientists BC, *Guide to the Continuing Education Program*, 19 January 2021 [*Guide to the CEP*].

⁴⁹ *Guide to the CEP, supra* note 46.

⁵⁰ *Ibid.*

⁵¹ *Bylaws, supra* note 3 at ss. 7.6.1, 7.6.7.

⁵² *Bylaws, supra* note 3 at s. 7.6.16.

4.5.1.4 Non-Practising Registrants

Non-practising Registrants must, at minimum, maintain their ethical and regulatory competence. To maintain regulatory competence, non-practising Registrants must be aware of and meet the intent of any regulatory changes that impact them. They must also be aware of and comply with ethical obligations binding on Registrants.

See the Engineers and Geoscientists BC *Guide to the Continuing Education Program*.

4.5.2 USE OF NEW TECHNOLOGIES

Registrants have a duty to attain and maintain competence with respect to new technologies and technological advancements. Changes in technology that improve or result from the practice of engineering and geoscience provide benefits to Registrants, clients, and the public by allowing for more functional, efficient, cost-effective, and safer solutions that address needs of stakeholders and the public.

Registrants should make efforts to keep up with technological advancements and use new technology where appropriate. However, where Registrants render services that involve analysis, calculations, or other engineering or geoscience services that are supported by the use of computer programs, they should do so only after taking steps to thoroughly understand the programs, their underlying assumptions, and their limitations.

4.6 STATE QUALIFICATIONS ACCURATELY (PRINCIPLE 6)

Registrants must provide accurate information in respect of qualifications and experience.

KEY POINTS:

- a) Registrants may only make statements about qualifications that are true and factual, never overstating what they can do for a client.
- b) Registrants should review what they have written or what others write about them to confirm that statements are accurate.
- c) When marketing services or proposing to undertake work for a client, Registrants should honestly assess and state whether they have the requisite expertise to carry out the work safely and effectively.
- d) Registrants must be careful to accurately assess and state the qualifications of any experts they choose to rely on.

To become a Registrant and achieve specific qualifications for the practice of engineering or geoscience, people undergo many years of schooling and gain experience. Registrants must ensure that their qualifications are presented accurately and must only make true and factual statements about their qualifications and the services and activities they are able to undertake.

Applicants are required to be of good character and good repute, and Registrants must demonstrate both throughout their entire careers. Embellishing qualifications is inappropriate, and if Registrants win work beyond their qualifications because of inaccurate information, the safety of the public and/or environment is put at risk.

4.6.1 REGISTRANT INFORMATION

Principle 6 of the Code of Ethics requires Registrants to tell the truth and not embellish qualifications and experience to make themselves appear more qualified than they are. When marketing services or proposing to undertake work for a client, Registrants should first understand the scope of services and expertise required to undertake an assignment, and then assess and state whether they have the requisite expertise to carry out the work safely and effectively.

Just as clients and others rely on the professional opinions of Registrants, they also rely on statements made by those professionals about their qualifications and experience. If these are not stated accurately or supported by fact, they may induce others to make decisions that put public safety and the reputation of the professions at risk.

Registrants must not say anything untrue about their qualifications and experience in any document published or provided to others. Registrants should review what is written by or about them to confirm all statements are accurate.

Registrants are required to state their industry and area(s) of practice annually upon renewal of their registration.⁵³ Any changes to this information, as well as all other information required for the Engineers and Geoscientists BC register, must be provided in writing so it can be published on the register within 30 days of the change taking effect.⁵⁴

CASE EXAMPLE: MISLEADING RÉSUMÉ

DESCRIPTION: An engineer admitted to indicating on their résumé that they held a Master of Business Administration, Master of Accounting and Estimating, and Project Management Professional Certification, when the engineer in fact held none of these. In addition, résumé listed experience on projects that the engineer had never worked on.

The engineer agreed to a one-month suspension. The engineer was also required to complete an online seminar, pay a \$4,000 fine, and pay \$2,500 towards Engineers and Geoscientists BC's legal costs.⁵⁵

COMMENTARY: Registrants must make sure their qualifications are stated correctly on any written material. Registrants are governed by the Code of Ethics during the hiring process, as well as when acting within an employment context. Registrants must ensure that all advertisements of their services are accurate.

4.6.1.1 How to Write Qualifications

When stating qualifications, Registrants must be careful to use the appropriate designations and post-nominals after their name. The Bylaws provide instruction on how this is to be done correctly.

Engineers-in-training and geoscientists-in-training may use the post-nominals “EIT” or “GIT” and may only use a title containing the words “engineer” or “geoscientist” if “EIT” or “GIT” is used next to the title and given the same degree of prominence.⁵⁶ Trainees must not represent themselves as Registrants with the right to engage in unsupervised practice.⁵⁷ Other specific conditions placed on trainees can be found in Section 5.5 of the Bylaws.⁵⁸

Only Registrants who are designated Professional Engineers may identify themselves with the post-nominal “P.Eng.” and only those who are designated Professional Geoscientists may identify themselves with the post-nominal “P.Geo.”⁵⁹ Only designated Structural Engineers may use the post-nominal “Struct.Eng.”⁶⁰

⁵³ *Bylaws*, *supra* note 3 at ss. 5.27(4)(d), 5.29.

⁵⁴ *Bylaws*, *supra* note 3 at s. 5.29(2).

⁵⁵ *APEGBC v. Arguirova* (19 June 2017).

⁵⁶ *Bylaws*, *supra* note 3 at ss. 5.5.1(2 and 3), 5.5.2(2 and 3).

⁵⁷ *Ibid.* at ss. 5.5.1(4), 5.5.2(4).

⁵⁸ *Ibid.* at s. 5.5.

⁵⁹ *Ibid.* at ss. 5.6(2), 5.7(2).

⁶⁰ *Ibid.* at s. 5.6.1(2).

Professional Licensees Engineering may use the post-nominal “P.L.Eng.” and Professional Licensees Geoscience may use the post-nominal “P.L.Geo.”.⁶¹

Non-practising Registrants may only represent themselves using their professional designation if followed by the words “Non-Practising” or “Retired”.⁶²

4.6.1.2 Misuse of Title

Strict prohibition on the inaccurate use of the titles “Professional Engineer”, “Professional Geoscientist”, “Professional Licensee Engineering”, “Professional Licensee Geoscience” and any other title that implies status as a registrant of Engineers and Geoscientists BC upholds public confidence in these titles by ensuring that individuals have proper training and experience to perform their work. Therefore, anyone who is not licensed or registered with Engineers and Geoscientists BC, or who has let a registration lapse, is prohibited from using titles or other language that leads others to believe they are Registrants.⁶³ Similarly, if a registrant becomes aware that a non-registrant is representing themselves as an engineer or geoscientist, they have a duty to report that individual to Engineers and Geoscientists BC. See [Section 4.9 Duty to Report \(Principle 9\)](#) for further discussion.

Registrants should also be careful to use titles that do not overstate their role within their organization or on a project, including representations made on résumés or CVs. Registrants who are managers should also ensure that unlicensed employees do not use misleading titles.

4.6.2 EXPERT REPORTS

Registrants must be careful to accurately state the qualifications of any experts they choose to rely upon, in addition to ensuring the accurate representation of their own qualifications. It is important for clients and the public to be informed and possess true information in order to make decisions and properly weigh competing opinions.

CASE EXAMPLE: MIS-STATING EXPERT QUALIFICATIONS

Description: A geologist admitted that in writing a technical report for a mining project in Nelson, BC, they relied on unqualified expert reports regarding metallurgical test work without reading them or verifying the experts’ qualifications.

National Instrument (NI) 43-101, Standards for Disclosure for Mineral Projects required the geologist to include a limited disclaimer of responsibility identifying the source of their information, including the title, author, date, extent of reliance, and portions of the expert technical report to which the disclaimer applies. However, not only did the geologist fail to comply with NI 43-101, they also misrepresented the experts’ qualifications.

This (and other contraventions) resulted in the Registrant’s membership being suspended for three months. The geologist was also prohibited from acting as a qualified person in relation to authoring technical reports without direct supervision for at least one year after suspension, and they were required to complete relevant training on mineral project reporting, and to pay \$7,500 towards Engineers and Geoscientists BC’s legal costs.⁶⁴

Commentary: Registrants must be careful to accurately state the qualifications of any expert they rely upon, in addition to ensuring the accurate representation of their own qualifications. This is necessary in order to uphold the integrity of the profession and of professional opinions.

⁶¹ *Ibid* at ss. 5.8(3), 5.9(3).

⁶² *Ibid.* at s. 5.13(5); Engineers and Geoscientists BC, [Guideline and FAQ for Non-Practising Status](#), 6 February 2021, at 3.

⁶³ *Bylaws*, *supra* note 3 at ss 5.6(2), 5.7(2), 5.8(2); *Casey*, *supra* note 2 at s. 13.8.

⁶⁴ [APEGBC v. Park](#) (16 October 2019).

4.7 DISTINGUISH FACTS FROM ASSUMPTIONS AND OPINIONS (PRINCIPLE 7)

Registrants must provide professional opinions that distinguish between facts, assumptions, and opinions.

KEY POINTS:

- a) Registrants must make it clear whether they are providing an opinion, making assumptions, or stating facts regarding engineering and geoscience in all spoken and written communications.
- b) Facts stated in professional documents must be supported by data or credited to a reliable source. Representations of facts must be precise and must be provided with careful attention and diligence to ensure their accuracy and reliability.
- c) Registrants should make an effort to state what assumptions they are using to fill in gaps.
- d) If called upon to provide a professional opinion, Registrants should remain objective, fair, and independent, while relying on facts to an extent appropriate to the opinions provided.
- e) Registrants should ensure that statements attributed to them reflect their professional opinion.
- f) Expert witnesses must examine all case facts objectively to assist decision-makers without regard for what effect their opinion may have on the outcome of a matter. When engaged to provide an expert opinion, Registrants should review the Engineers and Geoscientists BC *Professional Practice Guidelines – Expert Witness*.
- g) Registrants should avoid sharing casual advice or opinions with others, especially outside of a professional environment, when comments are neither based on a complete understanding of the facts or a supporting analysis, nor accompanied by a discussion of the inherent assumptions and limitations.

Registrants are consulted for their expertise and judgment on a wide range of issues. Because of this reliance on Registrants, it is very important that Registrants clearly indicate whether they are providing an opinion, making assumptions, or stating facts. Each are accompanied by a different level of certainty. If these types of comments are confused, serious consequences and misunderstandings can result.

4.7.1 DISTINGUISHING BETWEEN FACTS, ASSUMPTIONS, AND OPINIONS

When providing comments on professional subjects, Registrants must clearly state and distinguish between facts, assumptions, and opinions regarding engineering and geoscience in all spoken and written communication. Principle 7 of the Code of Ethics applies when preparing reports, discussing engineering or geoscience work with clients and colleagues, making statements to the media, publishing articles, and discussing topics online or in a public forum.

Registrants may be asked to deduce and provide facts; for example, which code or formula is most applicable or which product was used. Facts are statements that can be supported and proven by data or that have received certification from a credible source (e.g., government publication, direct measurement, certified lab results). Registrants can declare facts as statements of truth, but it must be made clear and unambiguous that they are making such a declaration. It is important that facts are stated with precision, and representations of facts must be provided with careful attention and diligence to ensure accuracy and reliability. It is of utmost importance that Registrants take extreme care to avoid overstating opinion as fact.

Registrants may need to make assumptions in order to determine opinions. Assumptions are used to fill in gaps between facts in order to draw conclusions. Registrants should make an effort to state what assumptions they are making and provide for margins of error.

Opinions are beliefs based on facts, assumptions, knowledge, and experience. Opinions should be stated as such in professional documents. When providing a professional opinion, Registrants should remain objective, fair, and independent. They must base opinions on sound professional judgment that relies on the facts and appropriate assumptions, and avoid giving biased opinions due to political, economic, or other non-technical factors.

Registrants must be careful to avoid providing biased judgments influenced by conflicts of interest. If Registrants have a real or perceived conflict of interest, they should decline providing an opinion until after disclosing the conflict. See [Section 4.8 No Conflicts of Interest \(Principle 8\)](#) for a more thorough discussion on this issue.

Registrants should also ensure that any statements attributed to them properly reflect their professional opinion.

4.7.2 REGISTRANTS AS EXPERT WITNESSES

Registrants with expertise and knowledge in a technical area may be asked to appear before a court or tribunal as an expert witness. When engaged to provide an expert opinion, Registrants should review the Engineers and Geoscientists BC *Professional Practice Guidelines – Expert Witness*.⁶⁵

The role of an expert witness is to assist the decision-maker by giving an independent objective assessment of the engineering or geoscience issue(s) in question, not to serve as an advocate for either party.⁶⁶ Expert witnesses provide their expert opinion based on the facts of a case, using their skills, training, and knowledge in order to assist the decision-maker in assessing material evidence.⁶⁷ Expert witnesses owe a duty to the court to be fair, objective, and non-partisan,

assisting the decision-maker without regard for what effect the expert's opinion may have on the outcome of the matter.⁶⁸

Expert witnesses must be careful to distinguish between facts, assumptions, and opinions when reviewing evidence for a case, and they must clearly articulate which they are providing to the court. Expert testimony is a unique form of evidence because it often takes the form of an opinion. Therefore, experts must be careful to accurately represent when they are presenting certain facts and when they are making assumptions or opinions that rely on an interpretation of facts based on their experience. This informs the decision-maker about how much weight to give each comment. The court places trust in experts and relies on their opinions to illuminate issues that the court cannot become adequately familiar with through personal study. This trust highlights the importance of complying with Principle 7 of the Code of Ethics.

Expert witnesses may work closely with the lawyer for the party that retained them in preparation for a trial. It is appropriate for engineers and geoscientists to seek advice from the lawyers they work with about how to behave in court or in front of a tribunal.⁶⁹ However, as expert witnesses, Registrants must stand their ground (Principle 10 of the Code of Ethics) and never allow anyone (including legal counsel) to alter the substantive content of their professional opinion for any reason that is not based on fact or the expert's honest conviction.⁷⁰ Similarly, Registrants must not allow lawyers to exaggerate the scope of their expertise (Principle 6 of the Code of Ethics).⁷¹

⁶⁵ Engineers and Geoscientists BC, *Professional Practice Guidelines – Expert Witness*, July 2016 [*Expert Witness Guidelines*].

⁶⁶ *Ibid.*

⁶⁷ Steven Lubet, "Expert Witnesses: Ethics and Professionalism" (1999) 12 Geo J Leg Ethics 465 at 468 [*Lubet*].

⁶⁸ *White Burgess Langille Inman v. Abbott and Haliburton Co.*, 2015 S.C.C. 23 at para 2; *Supreme Court Civil Rules*, B.C. Reg. 168/2009 at

Rule 11-2; Professional Engineers Ontario, *The Professional Engineer as an Expert Witness*, 2011, at 5-6.

⁶⁹ *Lubet*, *supra* note 67 at 469.

⁷⁰ *Ibid.* at 470.

⁷¹ *Ibid.* at 471.

4.7.3 GRATUITOUS ADVICE

Registrants should be careful when sharing advice or opinions about engineering or geoscience work, especially in social or informal settings (e.g., during dinners with friends). Registrants can still be held liable for advice or opinions offered to recipients who are not their client or employer. As such, Registrants should avoid sharing casual advice or opinions with others, especially outside of a professional environment, when comments are neither based on a complete understanding of the facts or a supporting analysis, nor accompanied by a discussion of the inherent assumptions and limitations. However, if Registrants choose to offer gratuitous advice, they should clarify the inadequacy of their information and accompany any opinion with a caveat, disclaimer, or note of caution.⁷²

4.8 NO CONFLICTS OF INTEREST (PRINCIPLE 8)

Registrants must avoid situations and circumstances in which there is a real or perceived conflict of interest and ensure conflicts of interest, including perceived conflicts of interest, are properly disclosed and necessary measures are taken, so a conflict of interest does not bias decisions or recommendations.

KEY POINTS:

- a) A conflict of interest is a situation in which a person becomes unreliable because a professional or personal benefit may exist that clashes with the person's professional duties.
- b) Conflicts of interest can be real or reasonably perceived and can arise from any interest that interferes with the service owed to clients or employers (direct or indirect).
- c) Registrant must avoid conflicts of interest wherever possible.
- d) Registrants must recognize and identify a conflict of interest when it arises.
- e) Registrants must immediately disclose any real or perceived conflicts of interest to employers, clients, and/or affected parties.
- f) Based on the response of employers, clients, and/or affected parties, Registrants must either withdraw from the situation and eliminate the conflict or work to mitigate the risk of biased judgment by taking necessary measures to prevent the conflict of interest from biasing decisions and recommendations.
- g) It is unethical for Registrants to accept allowances, commissions, bribes, kickbacks, or large gifts from interested parties, suppliers, contractors, or similar participants in connection with work for which they are responsible.
- h) Registrants must be cautious of contingency fee arrangements because they are particularly likely to create conflicts of interest.
- i) Registrants should never divulge clients' or employers' confidential information or use it for personal gain unless permission to do so has been provided by the owner of the information, a legal duty requires disclosure (such as the duty of a witness at trial), or the duty to report is engaged.
- j) Registrants should be attentive and careful in order to detect when it may be unethical to give or accept a gift.

⁷² Professional Engineers Ontario, *Professional Engineering Practice*, August 2017, at 14 [*PEO Practice*].

4.8.1 UNDERSTANDING CONFLICTS OF INTEREST

A conflict of interest is a situation in which a person becomes unreliable because a professional or personal benefit may exist that clashes with the person's professional duties.⁷³ Conflicts of interest are problematic because they can undermine the reliability of a Registrant's judgment and, on a larger scale, can damage public confidence in the engineering and geoscience professions.⁷⁴

A conflict of interest arises when:

- a) the Registrant is in a relationship with another person (individual, corporation or other legal entity) who relies on the Registrant to exercise professional judgment in that other person's interest; or
- b) the Registrant has an interest that tends to interfere with the proper exercise of the Registrant's professional judgment.⁷⁵

See the case example below and also [Appendix C4 Case Examples: Conflicts of Interest \(Principle 8\)](#) for the following additional examples:

- Case Example: No Conflict of Interest
- Case Example (Hypothetical): Holding Shares in Another Company on the Same Project

CASE EXAMPLE: ABUSING EMPLOYMENT POSITIONS FOR FINANCIAL AND PERSONAL GAIN

DESCRIPTION: A field engineer with the BC Ministry of Forests was partially responsible for the approval of road applications from timber licensees, which included selecting new roads to be constructed and establishing budgets for each. Concurrent to their work at the Ministry, the engineer also set up an engineering consulting firm which offered services related to the development of access roads for the harvesting of timber such as "preparing submissions for Ministry approval". The engineer's spouse was the sole director and the only shareholder of this firm.

During this engineer's disciplinary inquiry, Engineers and Geoscientists BC found evidence that the engineer had promoted their firm and denigrated its competitors in the engineer's role at the Ministry. The engineer also used their position at the Ministry to gain access to information, which they then used to further their firm's business. Finally, in their role at the Ministry, this engineer reviewed designs submitted by their own firm without disclosing their conflict of interest or withdrawing.

The engineer pled guilty to five charges related to their conflict of interest and, as a result, the engineer's membership was suspended for 15 months.⁷⁶

COMMENTARY: Principle 8 of the Code of Ethics requires that Registrants avoid real or perceived conflicts of interest and ensure their proper disclosure and remediation. This Registrant violated Principle 8 by using their professional position with the Ministry to secure benefits for their private firm, using inside knowledge and sway to unfairly compete with other Registrants, and failing to properly disclose their conflict of interest to their employer.

⁷³ Troy Segal, "Conflict of Interest", *Investopedia* (28 June 2020).

⁷⁴ NSPE Board of Ethical Review, "Conflict of Interest – Holding Company (Case No. 02-10)", *National Society of Professional Engineers* (22 May 2003) at 83 [*Holding Company Case No. 02-10*].

⁷⁵ Michael Davis, Sissela Bok & Henry Sidgwick, *Thinking Like an Engineer: Studies in the Ethics of a Profession* (Oxford: Oxford University Press, 1998) at 104.

⁷⁶ "APEGBC re Ackbar", *The Professional Engineer* (July 1985).

4.8.2 AVOIDING CONFLICTS OF INTEREST

Step 1: Avoid Conflicts of Interest Wherever Possible

Registrants should be careful to avoid situations with conflicting interests; however, conflicting interests do not always result in harm to a client or the public. Whether harm results from a conflicting interest depends on how the conflict arises, and how it is dealt with. Having a conflict of interest does not necessarily mean that a Registrant has done anything inappropriate, but self-interest makes the person vulnerable to acting inappropriately.

Registrants are responsible for how conflicts of interest are handled. They must act with fairness and good faith to all parties (Principle 13 of the Code of Ethics) by ensuring that conflicts of interest do not compromise professional judgment. Registrants should also seriously reflect upon their own self-interest with self-awareness and honesty.

Step 2: Recognize and Identify a Conflict of Interest When it Arises

Conflicts can arise from any interest that interferes with the service owed to a client or employer. Most commonly, at least one of the interests involved is a financial interest, but conflicts may also relate to non-financial interests of the Registrant or interests of other clients, associates, family, or friends.

Conflicts may be “real” when actual interests clash, or “perceived” when a reasonable person looking at the situation would view it as a conflict of interest, regardless of whether the conflicted person believes they can still act impartially. Perceived conflicts of interest are just as concerning because clients cannot be sure whether the Registrant they are relying on can be trusted to be completely impartial and dedicated to their best interests. Perceived conflicts of interest are usually harder to identify. They also lead to suspicion that reduces the trust placed in the Registrant’s judgment.

It is important for Registrants to identify any interests that put them in conflict or may be perceived to put them in conflict with professional duties. Precise rules for conflict of interest issues are not possible to articulate. Registrants should use their conscience and good judgment for guidance. It is helpful to use the “front page of the newspaper test” in which Registrants think about what it would look like if their situation ended up as a headline on the front page of a newspaper. If they are embarrassed or concerned about what it would look like, this is one indication that, at minimum, a perceived conflict of interest likely exists.

Step 3: Disclose Any Real or Perceived Conflict of Interest to Employers, Clients, and/or Affected Parties

Once a real or perceived conflict of interest is identified, Registrants should immediately advise their client, employer, and any other affected parties, as well as provide ongoing transparency. If Registrants are unsure whether to disclose a potential conflict of interest, they should err on the side of disclosure.

Step 4: Based on the Response of Employers, Clients, and/or Affected Parties, Either Withdraw from the Situation and Eliminate the Conflict or Work to Mitigate the Risk of Biased Judgment

If, with full knowledge of a conflict of interest, a Registrant’s client, employer, or other affected party chooses to have the Registrant continue working, the Registrant must use additional caution when making decisions and discharging their duties in the best interest of their client or employer. Before continuing to act, they must also receive the client’s or employer’s consent in writing. Registrants must take any measures necessary to prevent the conflict of interest from biasing their decisions or recommendations. For example, it is usually wise to add another layer of independent review to maintain impartial outcomes.

If a Registrant does not receive consent in writing or cannot disclose their conflict of interest due to confidentiality restrictions, the expectation is that the Registrant will withdraw from the situation.

Registrants should also withdraw completely from any decision-making related to the topic giving rise to the conflict of interest, such as participating in deliberations or voting. Registrants must not do anything that could be perceived to influence a decision on this issue, including talking to decision-makers about the issue in casual settings.⁷⁷

If a complaint is made, Engineers and Geoscientists BC will investigate and seek information regarding the circumstances of the alleged. Registrants should document the decision-making process they undertake once they find themselves in a conflict of interest, to provide evidence that they took appropriate steps, particularly Steps 3 and 4 above, to properly address the real or perceived conflict of interest.

4.8.3 COMPENSATION AND CONTINGENCY FEE ARRANGEMENTS

Various situations can give rise to a conflict of interest; however, the most common is a clash between personal financial gain and professional duties. This often arises because a system of compensation creates compromising incentives.

Registrants should be fairly remunerated for their services; however, regardless of how much Registrants are being paid, they must ensure they comply with their professional obligations under this principle of the Code of Ethics. Registrants are expected to put quality service to the public and environment above financial incentives.

Engineers and Geoscientists BC does not set price floors or limits on services provided by Registrants and instead lets the free market dictate prices. Though Registrants are encouraged to charge appropriate fees for their work, Engineers and Geoscientists BC will only involve itself in fee disputes in instances of fraud (e.g., clients receive bills for work not actually done,

Registrants bill for work performed that was inappropriate and unnecessary).⁷⁸

It is unethical for Registrants to accept allowances, commissions, bribes, kickbacks, or large gifts from interested parties, suppliers, contractors, or other parties dealing with their clients or employers in connection with work for which they are responsible. It is also inappropriate for Registrants to accept compensation—financial or otherwise—from more than one interested party for the same service, or for services pertaining to the same work, unless there is full disclosure and consent from all interested parties.

Registrants can be compensated for their professional services in various ways. However, some types of compensation may raise ethical issues related to conflicts of interest, including design/build projects, construction management, limited liability companies, and joint ventures.⁷⁹

Contingency fee arrangements are particularly prone to creating conflicts of interest. In a contingency fee arrangement, a Registrant's fees are calculated "on a predetermined basis relating to the outcome of a transaction or the result of services performed."⁸⁰ Therefore, a Registrant who enters into such an arrangement has an interest in achieving a particular outcome with their work. This interest may interfere with the proper exercise of their judgment, creating a conflict between the Registrant's duty to hold paramount the safety, health, and welfare of the public and protection of the environment, and the interests of the Registrant's client or employer.

To adhere to Code of Ethics obligations, Registrants must not request, propose, or accept a contingency fee arrangement that could reasonably be perceived as having the potential to compromise their judgment. In addition to meeting their obligations under the Code of Ethics, Registrants must also abide by sector-specific

⁷⁷ For further discussion on avoiding Conflicts of Interest, see the lecture series: Brian Friedrich and Laura Friedrich, "[Conflicts of Interest Unpacked](#)", *EGBC / ProDio Learning* (11 December 2019) [[Conflicts of Interest Unpacked](#)].

⁷⁸ *Samuels, supra* note 32 at 121-124.

⁷⁹ *Holding Company Case No. 02-10, supra* note 74.

⁸⁰ Chartered Professional Accountants of British Columbia, *CPABC Code of Professional Conduct*, August 2018, at 10.

rules that prohibit contingency fee arrangements, such as NI 43-101 and NI 51-101 standards.⁸¹

See [Appendix A1 Prohibited Contingency Fee Arrangements](#) for more information on prohibited arrangements.

4.8.4 GIFTS

Professional relationships sometimes involve the exchange of gifts. However, Registrants may feel indebted if they receive a substantially large gift, tempting them to compromise their work in favour of the gift giver. This creates a potential conflict of interest between the desire to please the giver and the duty to provide honest and impartial professional opinions.

Registrants should be attentive and careful and use their judgment to distinguish appropriate and inappropriate gifts. If unsure whether a gift is acceptable, Registrants should consult with managers or other colleagues. However, to avoid any potentially compromising situations, the best practice is to decline gifts when unsure of social or cultural norms and expectations.⁸²

Taking or giving bribes is illegal and unethical, regardless of whether it occurs in Canada or in a foreign country. (Refer to [Section 4.3 Follow the Law \(Principle 3\)](#) for more information on relevant legislation governing corruption.) However, the offering and acceptance of smaller gifts has many grey areas and often requires a nuanced analysis. Further, public attitudes and standards change over time, so some things that were once considered acceptable may now raise red flags.⁸³

The following considerations can assist Registrants when assessing the appropriateness of a gift:

- a) What is the size of the gift?
- b) What is the timing of the gift?
- c) Would the Registrant be comfortable telling their company's management about the gift? If knowledge of the gift became public, would it be embarrassing for the Registrant or their company?
- d) Does the Registrant have to make rationalizations to themselves about the appropriateness of the gift?⁸⁴

Additional prohibitions and policies with respect to gifts may be set by employers. They may even prescribe a helpful monetary threshold below which gifts may be acceptable.⁸⁵ Registrants should consult their employer's policies for guidance.

4.8.5 CONFIDENTIAL INFORMATION

Another situation that may raise a conflict of interest is when Registrants have access to confidential information through their professional position that they could use for their own personal advantage. In this situation, self-interest could influence Registrants to act on that information, despite their professional duty to refrain from doing so.⁸⁶ Registrants must avoid divulging and/or using confidential information in ways that benefit themselves or others to the disadvantage of their client. This unacceptable handling of a conflict of interest would violate Principle 8 of the Code of Ethics.

⁸¹ *National Instrument 43-101 Standards of Disclosure for Mineral Projects*, B.C. Reg. 12/2001 at s.1.5 [*NI 43-101*]; *National Instrument 51-102 Continuous Disclosure Obligations*, B.C. Reg. 110/2004 at ss. 2.1.2, 3.2, 3.5(b) [*NI 51-101*].

⁸² Gordon C. Andrews, "Evaluation & Revision of the APEGBC Code of Ethics Guidelines" prepared for *Engineers and Geoscientists BC* (12 August 1998) at 29.

⁸³ *Samuels*, *supra* note 32 at 85.

⁸⁴ Michael Gannon, *Applied Ethics in Exploration & Mining*, course content (Edumine, 21 November 2013) at 100 [*Gannon*].

⁸⁵ *Samuels*, *supra* note 32 at 91.

⁸⁶ *Conflicts of Interest Unpacked*, *supra* note 77.

All information received from a client or employer is considered confidential and should not be used without their permission, unless it is already in the public domain, a legal duty requires disclosure (e.g., duty of a witness at trial), or the duty to report is engaged (Principle 9 of the Code of Ethics). Confidential information is privileged, proprietary, and provided to Registrants only to facilitate their work.

Clients and employers are entitled to assume that Registrants will continue to maintain confidentiality after the conclusion of their business relationship, regardless of whether Registrants sign confidentiality agreements to reflect this.⁸⁷ Therefore, Registrants have a responsibility to keep client information confidential when acting on their behalf and drafting documents for publication. If Registrants are ever unsure whether certain information is confidential, it is best to obtain approval from the client or employer before publishing or disclosing in any way.⁸⁸

Conflicts of interest may arise in situations where Registrants enter into a working relationship with one of their former employers' or clients' competitors. In this case, their duties to both parties are in conflict. Registrants must always honour the duty of confidentiality to former employers and clients, and they cannot agree to any contract that requires the disclosure of confidential information without express permission. Registrants also should not supply anyone with documents or information gained through previous employment.

See [Appendix A2 Confidential Information](#) for more information.

4.9 DUTY TO REPORT (PRINCIPLE 9)

Registrants must report to Engineers and Geoscientists BC and, if applicable, any other appropriate authority, if the Registrant, on reasonable and probable grounds, believes that:

- a) the continued practice of a Regulated Practice by another Registrant or other person, including firms and employers, might pose a risk of significant harm to the environment or to the health or safety of the public or a group of people; or
- b) a Registrant or another individual has made decisions or engaged in practices which may be illegal or unethical.

KEY POINTS:

- a) Registrants must confirm that there are reasonable and probable grounds to believe the problem is real and ensure possible consequences have been assessed (e.g., gather all relevant material to support the complaint and consult relevant parties).
- b) Where possible, it is best practice for Registrants to inform the parties involved in the harmful conduct of Registrants' duty to report to the appropriate authorities.
- c) Registrants must discern who to inform.
- d) Registrants must promptly tell the appropriate authority about the problem, its consequences, and recommendations for remedial action.
- e) Registrants must follow up to see that action is being taken.

⁸⁷ *Andrews, Shaw & McPhee, supra* note 7 at 285.

⁸⁸ *PEO Practice, supra* note 72 at 15.

4.9.1 UNDERSTANDING THE DUTY TO REPORT

During their day-to-day activities, Registrants may observe circumstances or situations that they believe pose a risk of significant harm to the environment or to the health or safety of the public, or that are illegal or unethical. In keeping with Principle 1 of the Code of Ethics, Registrants have a duty to hold paramount public safety and protection of the environment. They cannot choose to look the other way and ignore what they observe. Therefore, Principle 9 of the Code of Ethics requires Registrants to report the wrongdoings of other professionals, clients, firms, and employers.

The duty to report is an important aspect of the self-regulating nature of professional engineering and professional geoscience.⁸⁹ Regulatory bodies need to be aware of professional misconduct in order to deal with it and take proactive steps. However, what the duty to report entails depends on specific circumstances.

Registrants must first confirm that a suspected problem is likely real and that they have correctly assessed possible consequences, in order to minimize the risk of civil action associated with an incorrect or premature allegation.⁹⁰ If a Registrant is unsure of whether they should be reporting, they may seek advice from Engineers and Geoscientists BC.

The duty to report does not mean that Registrants must correct the problems that they identify, as they may not have the authority or competence to do so. Instead, Registrants are required to promptly notify the person(s) responsible for the project, Engineers and Geoscientists BC, and any other appropriate authorities.⁹¹ If their warnings are ignored, Registrants must take their concerns to higher levels of authority until their concerns are adequately resolved.

Once an issue has been reported to Engineers and Geoscientists BC, the complainant's role becomes that of a witness. It is then under the discretion and responsibility of Engineers and Geoscientists BC to

investigate and prove the case. Complainants are not obligated to gather evidence and present arguments, but they do have a right to be kept informed about the reasons and outcome of cases.⁹²

4.9.2 TRIGGERING THE DUTY TO REPORT

The duty to report under Principle 9, item a) is triggered if Registrants have reasonable and probable grounds to believe that certain activities might pose a risk of significant harm to the environment, or to the health or safety of the public or to a group of people. The duty to report under item a) requires Registrants to report on situations that arise from "the continued practice of a Regulated Practice" by others. Because Regulated Practice is practice that is not reserved exclusively for Registrants of Engineers and Geoscientists BC, this means that the obligation is to report anyone, Registrant or not, who is believed to be engaged in Regulated Practice in a manner that poses a risk of significant harm to the environment, or to the health or safety of the public or to a group of people. Once a situation crosses this triggering threshold, it is critical that Registrants act on their duty.

Under Principle 9, item b) of the Code of Ethics, Registrants have a duty to report whenever they have reasonable and probable grounds to believe that another Registrant or any individual has made decisions or engaged in practices that may be illegal or unethical. Registrants are not required to be certain that illegal or unethical conduct has occurred in order to report; however, Registrants should do their due diligence to assess the validity of any concerns or suspicions prior to reporting.

4.9.3 THE STATUTORY DUTY TO REPORT

In addition to their ethical duty to report under Principle 9 of the Code of Ethics, Registrants are also under a statutory duty to report pursuant to section 58 of the Act. The duty to report under the Code of Ethics and under section 58 of the Act are closely related as

⁸⁹ *Samuels*, *supra* note 32 at 118.

⁹⁰ *Ibid.* at 119.

⁹¹ See Engineers and Geoscientists BC, "[Submit a Complaint](#)"; *PEO Practice*, *supra* note 72 at 11.

⁹² *Bylaws*, *supra* note 3 at ss. 9.6(2), 9.7.1(3), 9.7.7(3)(b).

both impose an obligation upon Registrants to report on situations that they identify as posing a risk of significant harm to the environment or to the health or safety of the public of a group of people. The Code of Ethics duty to report additionally requires reporting illegal or unethical practices by any person.

However, the statutory duty to report goes beyond the ethical responsibility in several ways. While the Code of Ethics duty to report only applies to Registrants, the statutory duty to report extends to other people such as employers and business partners of Registrants. If any person terminates a Registrant's employment, revokes or suspends all or part of a Registrant's privileges, or dissolves a partnership with the Registrants because they have reasonable and probable grounds to believe that a Registrant is engaged in the Regulated Practice in a manner that may pose a risk of significant harm to the environment or to the health or safety of the public or a group of people, then that person is obliged to report this to Engineers and Geoscientists BC.⁹³ In fact, even if the person intended to take one of these steps, but the Registrant resigns, relinquishes privileges or dissolves the partnership before the person can do so themselves, the duty to report is still triggered.⁹⁴

Another difference is that the statutory duty to report requires Registrants to report on any identified registrant under the PGA⁹⁵ – meaning any professional who is registered with any regulatory body governed by the *Professional Governance Act*, which, as of the PGA's initial implementation, includes registrants of Engineers and Geoscientists BC as well as agronomists, applied biologists, applied science technologists and technicians, and forest professionals.

The duty to report at section 58 of the PGA is also subject to reprisal protection under section 103. This prohibits anyone from evicting, discharging, suspending, expelling, intimidating, coercing, imposing any pecuniary or other penalty on or

otherwise discriminating against a registrant who makes a report under section 58 of the PGA.⁹⁶

Failing to report may trigger an investigation on the basis of a breach of either or both of the Code of Ethics and the statutory (section 58) duty to report. In addition, a failure to report under section 58 of the PGA also constitutes an offence pursuant to section 106 of the PGA.⁹⁷

Registrants may have a duty to report under Principle 9 of the Code of Ethics even if some action has already been taken to address or mitigate the particular risk. The duty to report under the Code of Ethics concerns not only a single risky situation that may have been mitigated, but the "continued practice" of another Registrant or any person engaged in Regulated Practice.

It is important to note that the duty to report is not meant to require Registrants to make reports to Engineers and Geoscientists BC about concerns with government policies or authorizations that a registrant or other person may be operating under. Registrants may bring such types of concerns to the attention of the authority having jurisdiction over the policy or authorization in question.⁹⁸

4.9.4 REASONABLE AND PROBABLE GROUNDS

Registrants are required to make a report only if they have "reasonable and probable grounds" to believe the risk or allegation is real.

"Reasonable grounds" means that a reasonable person placed in the position of the Registrant (with similar knowledge and experience) would share the same concerns based on objective and credible information. However, engaging the duty to report does not require absolute certainty. "Probable grounds" means that it is more likely than not that the risk or allegation is true. When deciding whether a concern is serious enough

⁹³ *PGA*, *supra* note 4 at ss. 58(4).

⁹⁴ *Ibid.* at s.58(5).

⁹⁵ *Ibid.* ss.58(1), (2).

⁹⁶ *Ibid.* at s. 103.

⁹⁷ *Ibid.* s 106.

⁹⁸ Office of the Superintendent of Professional Governance, "[OSPG Guidance for Registrants and Employers or Partners of Registrants on the Duty to Report and Reprisal Protection](#)" (February 5, 2021) [OSPG Guidance].

to report, Registrants can ask themselves, “Would another reasonable Registrant in my situation also believe that, more likely than not, this activity might pose a risk of significant harm, or is illegal or unethical?”

Registrants are not required to establish a provable case for the complaint before reporting but must at least have reasonable and probable grounds for their allegation, and reports must be made in good faith.⁹⁹ Registrants should also ensure they have enough information about a situation to make a formal complaint. For example, vague implications about the conduct of competitors are not sufficient grounds for an investigation. Provided that complaints are made in good faith, complainants will not face consequences from Engineers and Geoscientists BC if their complaint does not result in further action.

4.9.5 RISK OF SIGNIFICANT HARM

The term “significant harm” must be applied contextually – there is no singular universal description of what constitutes significant harm.¹⁰⁰ Although “risk of significant harm” may seem to be a high standard, many engineering and geoscience activities, if done incorrectly, pose such a risk. Due to the nature of Registrant activity, even small oversights can pose significant risks. Therefore, when Registrants observe ongoing practice by another Registrant, or any person engaged in Regulated Practice (including firms and employers), that they believe indicates incompetence, negligence, or professional misconduct, the observing Registrant has a duty to report their observations to Engineers and Geoscientists BC.

Key court decisions have interpreted “significant harm” as carrying an inherent element of urgency; however, some hazards that are slow to develop still pose significant threats to the public and the environment.¹⁰¹ For example, landfill waste disposal and chemical waste disposal both have associated long-term risks to the public and the environment due to the release of

leachate or gases. Registrants should evaluate the safety and potential harm of their work for the entirety of its applicable lifecycle, which means considering long-term hazards with the same concern for public and environmental protection as more immediate hazards.

4.9.6 REPORTING

The most appropriate way for Registrants to discharge their duty to report will vary according to the specifics of the situation. The following outlines considerations that may be used to guide Registrants in reporting a significant risk of harm, illegal activity, or unethical behaviour.

1. Ask whether there are reasonable and probable grounds to believe there is a problem, and if possible consequences have been correctly assessed.

This includes gathering and considering available material in support of your opinion, such as legislation, codes, calculations, technical manuals, and expert opinions, and possibly speaking with the party engaging in harmful conduct. However, Registrants do not have a duty to investigate—that is the role of the regulatory body.

2. Identify who to report.

If the person is unknown, Registrants should take reasonable steps to determine the identity of the person who appears to be responsible for causing a significant risk of harm or has acted illegally or unethically. However, even if it remains unclear who to report, Registrants must still report the issue to Engineers and Geoscientists BC. If it turns out that the person responsible for the engineering or geoscience work is not a Registrant, this should also be reported to Engineers and Geoscientists BC.

⁹⁹ *Ibid.*

¹⁰⁰ *Ibid.*

¹⁰¹ *Clubb v. Saanich (Corporation of The District)*, 1996 CanLII 8417 (B.C.S.C.) at para 30, 46 C.R. (4th) 253; *Mount Polley Mine Tailings Pond Failure (Re)*, 2015 B.C.I.P.C. 30 (CanLII).

3. Identify whom to inform.

First, alert the person(s) who can mitigate the risky, illegal, or unethical situation.

- If the immediate physical safety of the public or the welfare of the environment is in jeopardy, Registrants have a duty to promptly notify their employer, client, and the person responsible for the safety of the project. If it is feasible and will expedite (rather than delay) mitigating the risk, best practice is to start by notifying employers, clients, and project leads before reporting to outside authorities.

Second, notify the appropriate regulatory authorities, including Engineers and Geoscientists BC.

- Notifying the appropriate authorities (e.g., Ministry of the Environment and Climate Change Strategy, WorkSafeBC) will depend on the specifics of the situation. Reporting to Engineers and Geoscientists BC should be done through the complaint process.

4. Act promptly.

Promptly notify the appropriate individual and/or authority of the problem, its consequences, and any recommended actions that should be taken.

Promptly means that Registrants should report their concerns as soon as they believe that their concerns meet the due diligence test for reasonable and probable grounds. Once the test is met, Registrants must not hold onto information but take immediate steps.¹⁰² Depending on the circumstances, there may be time to engage a colleague or an expert for advice in assessing the situation, as outlined in item 7 below.

5. Record the steps being taken to report the risky, illegal, or unethical situation.

Registrants are strongly encouraged to keep records of any communications regarding the issue, including their assessment of the situation, steps taken to report, and any responses from the relevant parties.

6. Follow up if the significantly risky, illegal, or unethical situation has been resolved.

Registrants should follow up with the individual or authority they informed to ensure appropriate actions have been or are being taken to solve the problem. If the individual or entities that were first notified fail to rectify the situation, Registrants must inform them that concerns will be taken to the next level if they refuse to take remedial action, including reporting to individuals who are higher up in the chain of management and/or reporting the issue to any appropriate authority.

Registrants should remember their obligation under Principle 10 of the Code of Ethics, to ensure that clients and employers are made aware of the full consequences of not following their technical advice.

Registrants should reference their duty to report under Principle 9 of the Code of Ethics, when facing any pushback or hostility from those involved in harmful conduct.

7. Have another professional assess the problematic situation.

It may be beneficial to have at least one other professional assess the problematic situation. This can provide additional support for a Registrant's argument, and the independent engineer or geoscientist might be able to make suggestions about what actions are appropriate to take.

Registrants may want to seek another professional's opinion for support in assessing the situation correctly in the first place, as outlined

¹⁰² OSPG Guidance, *supra* note 98.

in item 1 above, or for reinforcing their argument, especially when notified entities have failed to take any action.

Meanwhile, Registrants should remember their duty under Principles 8 and 13 of the Code of Ethics, to maintain the confidentiality of their clients or employers. If possible, Registrants should try to consult with in-house professionals to avoid exposing confidential information to outside parties.

8. Stop the work to avoid further harm.

Under Principle 1 of the *Code of Ethics*, Registrants must hold paramount the safety, health, and welfare of the public. If Registrants believe that workers or the public are in imminent danger, they have a duty to stop the work immediately. If attempts to stop the work fail, they should immediately call WorkSafeBC for assistance and indicate the urgency of the situation.

9. If you are the head of a public body, determine any other reporting requirements.

Registrants who are heads of public bodies must also follow their obligations to report under the *Freedom of Information and Protection of Privacy Act (FIPPA)*.¹⁰³ Refer to [Section 4.3 Follow the Law \(Principle 3\)](#) for more instruction on this obligation.

4.9.6.1 Conflicting Duties

Ethical dilemmas may arise from conflicts between the duties that Registrants have to their client or employer, and the duties they have to the public. Under Principle 8 of the Code of Ethics, Registrants must maintain confidentiality, yet under Principle 1, Registrants must hold paramount the safety, health, and welfare of the public, including the protection of the environment and the promotion of health and safety in the workplace. In order to fulfill Principle 1, Registrants often have a duty under Principle 9 to report activities that pose a significant risk or are

illegal or unethical, which conflicts with their obligation to maintain confidentiality. However, because the duty in Principle 1 is paramount, it overrides any other obligations Registrants may have. If the actions of a client or employer are illegal or unethical, or if they pose a significant harm to the environment or to public health or safety, Registrants have a duty to report only the information necessary to protect public safety.¹⁰⁴

Registrants may provide professional opinions to clients that advise against certain dangerous activities. Clients often own any scientific reports written for them and, under normal circumstances, the duty to maintain confidentiality under Principle 8 would prevent Registrants from disclosing their concerns to anyone else. However, if these opinions are disregarded and the dangerous activity continues to the extent that it creates a risk of significant harm, Registrants may have a duty to report under Principle 9. If Registrants believe that withholding confidential information jeopardizes public safety to this extent, they should make every effort to contact all parties internal to the project or company, but must also proceed to disclose this information to the appropriate authorities, including Engineers and Geoscientists BC.¹⁰⁵

If Registrants discover a specific hazard that, though concerning, does not pose a significant risk of harm and is not illegal or unethical, they should first inform their client of the hazard. This provides an opportunity for the client to address the hazard before confidentiality is breached. If the client does not adequately address the hazard, Registrants should consider withdrawing themselves from the project and evaluate whether their concerns should be brought to another party.

Another conflict may develop when Registrants are retained to assist in litigation and discover in the course of providing expert advice that another Registrant subject to the litigation acted unprofessionally. Reporting this conduct could violate the implied undertaking of confidentiality which applies to

¹⁰³ *FIPPA*, *supra* note 31.

¹⁰⁴ *Samuels*, *supra* note 32 at 59.

¹⁰⁵ *Ibid.* at 59.

information that parties must disclose during litigation. Registrants should seek legal advice in such a situation.

4.9.6.2 Self-Reporting

Under Principle 9 of the Code of Ethics, Registrants also have a duty to self-report unethical conduct. This is because the duty to report covers all dangerous, illegal, or unethical conduct committed by any and all Registrants. Self-reporting initiates the complaint process in the same way as complaints from the public.

In addition, section 5.32 of the Bylaws requires Registrants to inform Engineers and Geoscientists BC of any of the following:

- a) any conviction under a federal or provincial statute, or an equivalent offence in another jurisdiction;
- b) any investigation, inquiry, review, or other disciplinary proceeding by another regulatory body or professional association in BC or another jurisdiction;
- c) any disciplinary action taken by another regulatory body or professional association in BC or another jurisdiction, including an agreement resulting in resolution of an investigation or disciplinary process.

However, Registrants do not need to report convictions for offences prosecuted pursuant to tickets under the federal *Contraventions Act*, S.C. 1992, c. 47 or BC's *Motor Vehicle Act*, R.S.B.C. 1996, c. 318.

4.9.7 HESITATIONS OR UNCERTAINTY ABOUT REPORTING

Registrants may be hesitant to report a concern to Engineers and Geoscientists BC or another appropriate regulatory body for fear of being identified, because they are reluctant to participate in the complaint process, or because they assume someone else will report the concern.¹⁰⁶

However, the duty of a Registrant to hold health and safety paramount (Principle 1) is above all other considerations. This often requires Registrants to report significant risks or illegal and unethical conduct even when it is uncomfortable. Registrants cannot rely on others to report on their behalf. Future investigation into the conduct may also find and discipline colleagues who failed to report professional misconduct after becoming aware.¹⁰⁷

CASE EXAMPLE: FAILING TO REPORT UNETHICAL BEHAVIOUR OF A COLLEAGUE

DESCRIPTION: A client visited an engineers' office to collect documents for a building permit that still needed to be signed by the electrical engineer. But because the electrical engineer was unavailable at the time, their colleague, a mechanical engineer, chose to complete the forms on the electrical engineer's behalf and without their consent. The mechanical engineer applied the electrical engineer's professional seal and forged their signature four times on the Schedule B: Assurance of Professional Design and Commitment for Field Review.

The electrical engineer became aware that their colleague had forged their signature and used their seal without permission but did not report their colleague.

By consent order, the electrical engineer admitted that they failed to contact Engineers and Geoscientists BC upon learning of their colleague's unethical actions. The engineer agreed to undergo a Practice Review, complete and pass the Professional Practice Examination, and complete the Professional Engineering and Geoscience Practice in BC Online Seminar. They also agreed to pay \$3,500 towards Engineers and Geoscientists BC's legal and investigation costs.¹⁰⁸

COMMENTARY: Principle 9 of the Code of Ethics requires Registrants to report to Engineers and Geoscientists BC or other appropriate agencies any harmful, illegal, or unethical professional decisions or practices by Registrants.

Once the electrical engineer was aware that their colleague had acted unethically, they were required to report the colleague to Engineers and Geoscientists BC so proper investigatory and disciplinary action could be initiated. The Registrant's failure to do so resulted in this disciplinary action.

¹⁰⁶ Lisa Fong, QC, Michael Ng & Efrem Swartz, "The Duty of Professionals to Report" (September 2009) *Professional Regulation and Discipline Conference*, September 24-25, 2009, at 15 [Fong, Ng & Swartz].

¹⁰⁷ *Samuels*, *supra* note 32 at 119.

¹⁰⁸ *APEGBC v. Jatana* (11 February 2019).

In many situations, best practices encourage Registrants to talk to the person about concerns before, and in addition to, reporting their actions. However, this is not required and may not be recommended depending on the circumstances. If an activity causes a significant risk of harm, it may be necessary to involve the regulatory body right away. Approaching the person must not interfere with Registrants' duty to promptly report the relevant individuals and authorities.

There may also be times when Registrants find themselves in a grey area with limited information about the potential hazard. In this situation, Registrants should refer to the reasonable and probable grounds test above. Registrants may also consult with others, such as an Engineers and Geoscientists BC Practice Advisor or a trusted colleague, to determine the most appropriate course of action.¹⁰⁹

Registrants can also be disciplined for personal conduct that might affect public perception of the profession. Therefore, Registrants should report other Registrants for objectionable personal conduct if the conduct relates to the individual's designation as a Registrant or is illegal.¹¹⁰

It is difficult for Registrants to make anonymous complaints to Engineers and Geoscientists BC. While this may be uncomfortable for complainants, they often possess specific knowledge and can best assist Engineers and Geoscientists BC and other parties in addressing the issue. At the investigation phase of a complaint, there is some ability to shield the identity of the complainant from the Registrant subject to investigation. However, if the matter proceeds to the discipline phase, the complainant's identity generally must be disclosed to comply with the rules of procedural fairness. The duty to report is always binding, despite any discomfort that may result.

See [Appendix B1 Whistleblowing](#) for more information.

4.10 STAND YOUR GROUND (PRINCIPLE 10)

Registrants must present clearly to employers and clients the possible consequences if professional decisions or judgments are overruled or disregarded.

KEY POINTS:

- a) Registrants must ensure that opinions are based on sound principles, that the facts contained within them are correct, and that all information and assumptions are laid out logically, clearly, and completely, with particular attention being given to any complex content.
- b) Registrants must be realistic and honest in all estimates, reports, and statements, and be willing to admit when a wrong judgment has been made.
- c) Registrants must clearly explain concerns and recommendations in writing, while also stating the potential consequences of clients or employers not heeding Registrants' advice.
- d) Registrants must use all reasonable efforts to obtain written acknowledgement that clients or employers fully understand the risks of disregarding Registrants' advice, should they choose to do so.

Employers and clients engage engineers and geoscientists due to the high standards of professionalism and ethical behaviour, and for the technical knowledge Registrants possess in their areas of practice.¹¹¹ Each Registrant's specialized expertise allows others to have confidence in their opinions in their areas of competency. However, Registrants may occasionally face situations where their recommendations are being questioned by employers, clients, or other experts. If Registrants are being

¹⁰⁹ *Fong, Ng & Swartz, supra* note 106 at 28.

¹¹⁰ *Ibid.* at 15.

¹¹¹ *PEO Practice, supra* note 72 at 11.

thorough, careful, and diligent in their work, they should be confident enough to stand up for their opinions and hold true to what they think is right.

In keeping with Principle 10 of the Code of Ethics, Registrants have a duty to clearly inform their employers or clients of the consequences of ignoring their professional advice. This duty is especially pronounced in situations where Registrants possess superior knowledge and clients are vulnerable without sufficient disclosure.¹¹²

If employers, clients, or other Registrants question Registrants' professional decisions and judgments, Registrants should:

- a) check to ensure the facts, assumptions, and opinions in their advice are correct, properly and clearly explained, and distinguished from one another (Principle 7);
- b) engage the party questioning their opinions in a discussion to understand their concerns and address the root cause of any problem;
- c) clearly explain, in writing, their concerns and recommendations and the potential consequences of not heeding them;
- d) if those who are questioning are not Registrants, make a reasonable effort to ensure their advice is presented in a form that is easily understood by someone without sophisticated knowledge of their field;
- e) consider holding an in-person meeting about complicated issues, to improve communication and minimize any misunderstanding; and
- f) when questioned by another Registrant about professional work, assume that the questioning is done in good faith and act collaboratively with the other Registrant to resolve outstanding issues.

If employers or clients still choose to disregard this advice, Registrants must request a written confirmation that the employer or client fully understands the Registrants' advice and the possible consequences of not following it but has chosen a different course of action regardless. See [Section 4.9 Duty to Report \(Principle 9\)](#) for guidance on the Duty to Report, which may arise in some cases where an employer or client chooses to disregard a Registrant's advice.

Principle 10 requires Registrants to hold firm to their professional opinions and not be swayed by social, financial, or other types of pressure. It is of great importance that the integrity of work produced is not compromised.

An important aspect of Principle 10 also requires Registrants to admit when they are wrong. Insisting on faulty technical opinions can be just as dangerous as compromising technical opinions due to social pressure or selfish desires. Registrants should make all reasonable efforts to ensure that appropriate decisions are made. Principle 10 requires Registrants to act with integrity and wholehearted commitment to the best practice of engineering and geoscience.

See the case example below and also [Appendix C5 Case Examples: Stand Your Ground \(Principle 10\)](#) for the following additional examples:

- Case Example: Altering a Report Because of Pressure from a Client
- Case Example: Cheating at the Request of Management

¹¹² *Samuels, supra* note 32 at 62.

CASE EXAMPLE: FAILING TO INSIST ON PROFESSIONAL RECOMMENDATION

DESCRIPTION: An engineer prepared structural design drawings for an industrial building in Kamloops, BC. During the design and inspections for the project, the engineer became concerned about the soil capacity and verbally requested that the owner obtain a soil investigation. However, the engineer had not expressed their concerns in writing, and their verbal advice to obtain a soil investigation was overruled.

The disciplinary inquiry found that the engineer, who had sealed the drawings, failed to formally inform the owner or the regional district of the inherent risk of proceeding without soil investigation. Due to mitigating factors and the engineer’s cooperativeness, a reprimand was deemed sufficient in this case.¹¹³

COMMENTARY: Registrants have a duty to hold safety paramount under Principle 1 of the Code of Ethics and must make sure that any concerns about potential risks to the safety of the public and/or the environment are communicated and addressed. Registrants must always ensure that the possible consequences of disregarding their advice are made clear. This engineer failed to clearly present the consequences of ignoring their engineering advice.

4.11 EACH PROFESSIONAL IS RESPONSIBLE (PRINCIPLE 11)

Registrants must clearly identify each Registrant who has contributed professional work, including recommendations, reports, statements, or opinions.

KEY POINTS:

- a) When multiple Registrants take responsibility for specific disciplines or practice areas within professional documents (e.g., reports, drawings), each of those Registrants must authenticate and qualify their seals.
- b) When professional documents are reviewed by multiple Registrants, each focusing on a specific discipline, practice area, or expertise within a document, each of those Registrants must qualify their reviews.
- c) Registrants must give credit to others and seek their permission when using their work.
- d) Registrants must include a declaration for work provided by others that has been included in a Registrant’s sealed drawings. Refer to the sample wording in the Engineers and Geoscientists BC *Guide to the Standard for the Authentication of Documents*.
- e) Registrants should not authenticate engineering or geoscience work that they did not prepare or directly supervise (see section 3.5 of the *Guide to the Standard for the Authentication of Documents* for some narrow exceptions), or work that they are not qualified to carry out.

Clearly indicating each Registrant who has contributed professional work—including recommendations, reports, statements, or opinions—is a practice that delineates professional responsibility among Registrants. This not only protects the public (Principle 1

¹¹³ “APEGBC re C K Dahl”, *The Professional Engineer* (September 1986) at 10.

of the Code of Ethics) but also protects Registrants and their clients.

The Engineers and Geoscientists BC *Guide to the Standard for Authentication of Documents*¹¹⁴ indicate that when multiple Registrants are responsible for different disciplines or practice areas in a document, they must all authenticate the document and qualify their seals to indicate the work for which they are taking responsibility.¹¹⁵ Correspondingly, Registrants must not authenticate documents that include work that they did not prepare or directly supervise.

When multiple Registrants carry out reviews of different disciplines or practice areas in reports and other professional documents, each Registrant's area of review should be qualified. Otherwise, the review of areas that Registrants did not complete and may not be qualified for may be attributed to them.

Registrants often collaborate with one another to solve difficult problems and produce high-quality work, capitalizing on each contributor's area of expertise. If Registrants include design inputs (e.g., reports, memos) from other Registrants in their own sealed documents, they must ensure these inputs are sealed by the Registrants who prepared them. This is especially important if the inputs fall outside the assembling Registrant's area of expertise. If each input is not sealed by the professional who prepared it, or if the Registrant does not declare that they are absolving responsibility for an input, they may be violating Principle 2 of the Code of Ethics by taking responsibility for work for which they are not qualified. Sample declaration wording can be found in the *Guide to the Standard for the Authentication of Documents*.¹¹⁶

Many concepts in this principle and Principle 2 [know your limits] overlap. Registrants must keep both principles in mind when accepting professional responsibility for work, because in some cases, conduct can engage or breach multiple principles simultaneously.

It is also vital that Registrants are truthful and only take credit for work they produce or that is produced under their direct supervision. Taking credit for work created by others, not under the Registrants' direct supervision, or not giving credit where it is due, is dishonest and violates this principle and Principle 13 [do unto others] of the Code of Ethics.

CASE EXAMPLE: FAILING TO LIMIT EXTENT OF PROFESSIONAL RESPONSIBILITY

DESCRIPTION: An engineer working for a large consulting company was required to submit a hazard assessment for a commercial development application in Salmon Arm, BC. The engineer was neither trained nor experienced in conducting appropriate reviews of the aspects of work related to river flooding, erosion hazard assessment, hydrology, and fluvial geomorphology, which had been prepared by other professionals and included in the hazard assessment. Nonetheless, the engineer authenticated the entire content of the hazard assessment, including these areas in which they were not qualified, without limiting the extent of their professional responsibility.

As a result, the engineer accepted and agreed to the suspension of their membership for one month and to pay \$9,500 towards Engineers and Geoscientists BC's legal costs.¹¹⁷

COMMENTARY: This Registrant demonstrated professional misconduct by authenticating the entire content of the hazard assessment. In doing so, the engineer violated Principle 11 of the Code of Ethics by failing to identify each of the other professionals who completed work on the hazard assessment for the areas outside the engineer's own competence.

¹¹⁴ Engineers and Geoscientists BC, *Guide to the Standard for the Authentication of Documents*, 17 February 2021, at s. 3.2.15.9.

¹¹⁵ *Ibid.* at s. 3.4.3.1.

¹¹⁶ *Ibid.* at s. 3.2.15.9.

¹¹⁷ *APEGBC v. Quong* (1 May 2016).

4.12 WORK DILIGENTLY AND FOLLOW STANDARDS OF DOCUMENTATION (PRINCIPLE 12)

Registrants must undertake work and documentation with due diligence and in accordance with any guidance developed to standardize professional documentation for the applicable profession.

KEY POINTS:

- a) Registrants must carry out engineering and geoscience work carefully and thoroughly.
- b) Registrants should carefully review their own work and arrange for others to review their work, as required to suit the risk (see the *Guide to the Standard for Documented Checks of Engineering and Geoscience Work*).
- c) Registrants must make sure they are well informed and have followed the requirements of direct supervision before taking responsibility for the work of subordinates (see the *Guide to the Standard for Direct Supervision*).
- d) Registrants must follow all guidance and standards for the documentation of engineering and geoscience work.
- e) Registrants must establish and maintain a documented quality management process for retaining complete project documentation (see the *Guide to the Standard for Retention of Project Documentation*).
- f) Registrants must retain records that demonstrate that client and professional obligations have been met.
- g) Registrants should be able to easily retrieve documentation when needed.
- h) Registrants must retain records for their required retention period.
- i) Registrants must retain documentation that enables engineering or geoscience work to be handed off effectively and efficiently to others.

4.12.1 UNDERTAKE WORK AND DOCUMENTATION WITH DUE DILIGENCE

Principle 12 of the Code of Ethics requires Registrants to undertake work with due diligence, ensuring all work they take responsibility for has been properly reviewed and completed to an acceptable standard of quality and accuracy. See [Section 4.3 Follow the Law \(Principle 3\)](#) for more discussion on the basic standard of conduct expected.

However, authentication of documents by Registrants is not a mark of warranty or a guarantee of accuracy, but rather a mark of reliance indicating to others that they can rely on the fact that the authenticated opinions, judgments, or designs were provided by qualified Registrants who are held to high standards of knowledge, skill, and ethical conduct.

Carrying out work with due diligence means taking reasonable steps to satisfy requirements and avoid harm to the public, property, and the environment. It also means doing thorough research before embarking on or taking responsibility for a task and completing work with great care. Working diligently is an ethical obligation for all Registrants, and is necessary to hold public safety paramount, protect the environment, and promote health and safety in the workplace (Principle 1 of the Code of Ethics).

If Registrants have not undertaken work with due diligence, they may be unaware of applicable requirements and standards binding upon their work. This kind of carelessness and inattention results in errors and omissions. If not caught before construction or implementation, errors and omissions may result in harm to the public or environment, costly rework, or failure of the work.

Registrants should carefully review their own work and arrange for others to review their work as required to suit the risk. Refer to the Engineers and Geoscientists BC *Guide to the Standard for Documented Checks of Engineering and Geoscience Work* for more information on this review process.

CASE EXAMPLE: FAILING TO DOCUMENT CHANGES MADE DURING FIELD REVIEWS

DESCRIPTION: An engineer provided engineering services for wood frame buildings in the City of Abbotsford, BC and issued field reports which the engineer knew or ought to have known were incorrect. While the buildings were being constructed, the engineer continued to approve design changes made in the field or by the contractor without identifying and properly documenting these changes during field reviews and submitting a record of those changes to the City of Abbotsford, as required by section 2.2.7.3(2) of the *BC Building Code*.¹¹⁸ This engineer retained essentially no documentation for the projects under investigation, including designs, load calculations, and field review documentation.¹¹⁹

As a result of this professional misconduct, and all other contraventions collectively, the engineer's membership was suspended for six months, the engineer was subject to direct supervision for 12 months after their suspension, and the engineer had to pay \$29,000 towards Engineers and Geoscientists BC's legal costs.¹²⁰

COMMENTARY: It is of utmost importance that all documentation matches the work actually done. Clients, employers, and other Registrants all rely on corresponding documentation to be accurate. This engineer should have properly and thoroughly documented any changes made to the design.

Registrants must make sure they are aware of, and in compliance with, all relevant standards of documentation for the applicable profession and project. Guidance for documentation can be found from many different sources, such as Engineers and Geoscientists BC, firms, legislation, and building codes. This engineer violated Principle 12 by not adhering to the stipulated documentation instructions in the *BC Building Code*.

4.12.1.1 Ensure Adequate Knowledge and Direct Supervision Before Accepting Responsibility

Non-licensed individuals may assist in the performance of professional work if a Professional Engineer, Professional Geoscientist, Licensee or Life Member with the right to engage in Reserved Practice directly supervises and takes responsibility for their work.¹²¹ The supervising Registrant is accountable for work done by those under their supervision.¹²²

Registrants must ensure they have adequate knowledge of all work for which they are responsible, and meet the requirements of direct supervision in order to delegate activities to subordinates.¹²³ These requirements are outlined in the Engineers and Geoscientists BC *Guide to the Standard for Direct Supervision*, which describes how Registrants can avoid accepting responsibility for work when they are not competent in the relevant practice areas or do not have sufficient knowledge of the specifics of the work.¹²⁴

See also [Section 4.2 Know Your Limits \(Principle 2\)](#) and [Section 4.11 Each Professional is Responsible \(Principle 11\)](#) for more guidance on when to accept responsibility.

¹¹⁸ *British Columbia Building Code Regulation*, B.C. Reg. 264/2012 at s. 2.2.7.3(2).

¹¹⁹ *APEGBC v. Syed- Determination of the Discipline Committee* (15 February 2019).

¹²⁰ *APEGBC v. Syed – Decision and Order of the Discipline Committee on Penalty and Costs* (18 June 2019).

¹²¹ *Bylaws*, *supra* note 3 at s. 7.3.8(2).

¹²² *Samuels*, *supra* note 32 at 153.

¹²³ Engineers and Geoscientists BC, *Guide to the Standard for Direct Supervision*, 17 February 2021 [*Direct Supervision*].

¹²⁴ *Ibid.*

CASE EXAMPLE: IMPROPERLY SUPERVISING AN EMPLOYEE

DESCRIPTION: An engineer inadvertently allowed their employee, who was not registered to practice engineering in BC, to perform geotechnical engineering services and issue an engineering report without the supervision of a professional engineer.

A complaint arose because the employee overestimated the severity of a slope stability problem on the complainant's property, by using a slope height that was greater than the actual height to assess the stability of this slope. Once the error was brought to the employee's attention, they reassessed the slope and determined that there was still a significant risk of slope failure with potentially serious consequences for the complainant's property and house. This determination was subsequently confirmed by two independent consultants commissioned by the engineer's company to review the calculations. However, because the employee was not registered with Engineers and Geoscientists BC, their manager, the engineer, was professionally responsible for the project. The matter was resolved by consent, in which this engineer agreed to be reprimanded.¹²⁵

COMMENTARY: Registrants should appropriately supervise and review the work of subordinates who provide engineering or geotechnical services on Registrants' behalf, because they are professionally responsible for the work of all subordinates they supervise. It is important that Registrants adhere to the requirements for supervising subordinates described in the Engineers and Geoscientists BC *Guide to the Standard for Direct Supervision*.¹²⁶

4.12.2 FOLLOW ANY GUIDANCE DEVELOPED TO STANDARDIZE PROFESSIONAL DOCUMENTATION

Uniformity in documentation helps Registrants keep track of their work and speak to its quality. It also makes it easier for clients to observe and understand the products they are acquiring. If firms consistently produce well-documented and organized projects, clients will also be more willing to engage them in the future. Without proper documentation, Registrants may be unable to defend themselves against allegations and

unable to prove that all professional and contractual obligations have been met.

Projects often contain numerous detailed components and documents, which can accumulate over several years.¹²⁷ Even if only one small step is missed in the documentation process, it can have larger cumulative consequences down the line. Therefore, Registrants and their organizations must have formal processes to manage how they generate, revise, index, archive, and transmit project documentation.¹²⁸

Such procedures and protocols for documentation should include guidance for:

- a) retaining records that demonstrate that client and professional obligations have been met;
- b) retrieving documentation when needed;
- c) retaining records for the required period;
- d) effectively and efficiently handing off engineering and geoscience work to others; and
- e) demonstrating the trustworthiness of documents and records (which may involve using an authentication service to protect electronic documents).¹²⁹

The format and content of documents should be maintained with consistency, and in consideration of client, firm, project, regulatory, and industry standards, for the types of records being generated and maintained. Failure to fulfill any of these expectations makes it difficult for Registrants to perform their work effectively, efficiently, and in a manner that protects the public, environment, and workplace.

Registrants and their firms must also take steps to protect confidentiality and prevent the inadvertent release of documents to unauthorized third parties.¹³⁰

Guidance regarding how engineering and geoscience documentation is to be created, stored, issued, and retained is included in the *Guide to the Standard for*

¹²⁵ *APEGBC v. Greenfield* (5 February 1997).

¹²⁶ *Direct Supervision*, *supra* note 123 at 193.

¹²⁷ *Samuels*, *supra* note 32 at 178.

¹²⁸ *Bylaws*, *supra* note 3 at s. 7.3.2.

¹²⁹ *Samuels*, *supra* note 32 at 180-181.

¹³⁰ *Samuels*, *supra* note 32 at 178.

*Retention of Project Documentation.*¹³¹ Those standards expand on what a documented process for retaining complete project documentation entails, but does not tell Registrants which documents they must create or use. Those decisions depend on the discipline, practice area, or sector in which work is being undertaken.

Registrants must also be familiar with regulatory, statutory, and industry standards of documentation. For example, various regulatory processes require the submission of specific forms (e.g., building permit applications require Letters of Assurance), and project specifications may require that parties be certified to ISO 9001 standards.¹³²

CASE EXAMPLE: FAILING TO PROPERLY DOCUMENT INDEPENDENT REVIEWS

DESCRIPTION: An engineer failed to ensure that independent reviews were properly documented following the completion of each stage of a project. They also failed to ensure that a final independent review was completed prior to issuing design documents for construction.

As a result of this negligence in completing the proper documentation, the engineer's membership was suspended for one month and the engineer was prohibited from performing any independent review of structural designs until the completion of a practice review. They also had to pass the Professional Practice exam and complete an online seminar. The engineer had to pay a \$10,000 fine and \$5,000 towards Engineers and Geoscientists BC's legal costs.¹³³

COMMENTARY: Even though work may be completed on a project (in this case, independent reviews), this fact alone is insufficient without proper documentation. For this Registrant, and their firm, to ensure the reliability of each stage of their project, they needed to be able to confidently rely on the fact that the proper checks were completed. Accurate and thorough documentation would provide them with this assurance. Otherwise, it may be assumed that Registrants have not completed certain requisite work if they are unable to provide documented proof of its completion.

4.13 DO UNTO OTHERS (PRINCIPLE 13)

Registrants must conduct themselves with fairness, courtesy, and good faith towards clients, colleagues, and others; give credit where it is due; and accept, as well as give, honest and fair professional comment.

KEY POINTS:

- a) Registrants should be courteous, respectful, polite, and considerate with clients, colleagues, members of the public, and others.
- b) Registrants should act in good faith with honest intention, truthfulness, and integrity.
- c) Registrants should be fair, honest, and constructive when providing feedback, and focus on the work and work product, not on the individual.
- d) Registrants should respectfully receive and apply feedback to improve and develop professional skills.
- e) Registrants must be honest and accurate when advertising services or products.
- f) Registrants must give credit where credit is due.
- g) Registrants must not falsify data or plagiarize, and they must not allow bias or favouritism to temper findings and conclusions.

Principle 13 of the Code of Ethics is the broadest principle in the Code of Ethics. It captures an expansive range of conduct and requires that Registrants demonstrate fairness, courtesy, and good faith toward clients, colleagues, and others. Registrants are held to a high standard of ethical behaviour, and unprofessional treatment or criticism towards others is unacceptable.

¹³¹ Engineers and Geoscientists BC, *Guide for the Standard for Retention of Project Documentation*, 17 February 2021 [*Retention of Project Documentation*].

¹³² *Samuels*, *supra* note 32 at 179.

¹³³ *APEGBC v. Zickmantel* (27 July 2018).

Fairness is defined as impartial and just treatment or behaviour, without favouritism or discrimination. Registrants must provide engineering and geoscience decisions and opinions based on fact, expertise, and honest belief. Registrants cannot allow bias or favouritism to influence their findings or conclusions.

Courtesy is showing politeness in one's attitude and behaviour toward others. Polite behaviour is respectful and considerate of other people. Registrants are expected and required by Principle 13 to rise above any difficult situation and/or frustration to be courteous, polite, respectful, and considerate of clients, colleagues, and others.

Good faith is defined as honesty or sincerity of intention. Acting in good faith means communicating free of deceit, untruthfulness, and pretense, and proceeding from genuine feelings. To build and maintain a professional reputation of integrity, Registrants must act in good faith.

4.13.1 PROFESSIONAL COMMUNICATION

Effective communication is essential to Registrants' ethical duty to conduct themselves with fairness, courtesy, and good faith towards colleagues, clients, and others. Registrants must communicate in a professional manner, both in writing and verbally, which involves being polite, keeping the subject matter of emails work-related, and not engaging in workplace bullying. Registrant communication must also be truthful, accurate, relevant, and objective.

As professionals, Registrants should consider the knowledge and needs of their audience when choosing the appropriate approach, structure, and content for communication. This often requires Registrants to effectively explain technical concepts in a way that is both professional and understandable to lay people. Registrants should also consider the purpose of their

communication to decide how much information should be included or omitted.

The ability to communicate clearly and effectively is fundamental to Registrants' work. The nature of engineering and geoscience means that failure to communicate well can result in serious harm to the public or environment. Therefore, effective, respectful, and ongoing communication is necessary to fulfill the duty to the public and environment created by Principle 1 of the Code of Ethics.

4.13.1.1 Written Versus Oral Communication

Written communication should be clear and concise, while providing sufficient information to adequately explain the topic. It is important to remember that written communication is permanent and may be forwarded or copied, used in litigation, or subject to disclosure under privacy laws. Therefore, Registrants must exercise caution and restraint, refraining from sending anything they would be unwilling to have publicly attributed to them. Distinctions between internal and external communications are often unhelpful.¹³⁴ Even internal communications should be treated as though it could be made public.

In verbal communication, Registrants should focus on actively listening to others. Focus should be given to their message, tone, and body language. Registrants should make themselves aware of any communication barriers which may be present, including information overload, cultural barriers, language barriers, biases, and assumptions.¹³⁵ It is useful to restate and concisely summarize important aspects of conversations, in order to verify that all parties properly understand and agree, thereby lowering the risk of miscommunication and crystalizing the important points.¹³⁶ It is also best practice to write and send a confirmatory note to the other parties following an important conversation.¹³⁷

¹³⁴ *Samuels, supra* note 32 at 204.

¹³⁵ *Engineers and Geoscientists BC Online Professional Engineering and Geoscience Practice in BC Online Seminar: Module 9 [Practice in BC Online Seminar: Module 9]*.

¹³⁶ *PEO Practice, supra* note 72 at 14.

¹³⁷ *Samuels, supra* note 32 at 205.

Verbal communication portrays tone and emotion where written communication often cannot, making it a valuable tool for negotiations and problem-solving. However, it is generally inadvisable to form oral agreements without also putting them in writing. Parties are likely to have unspoken assumptions about the details and terms of agreements, have mismatched expectations, or remember agreements differently. Therefore, oral communications are not as reliable in the event of litigation, an investigation by Engineers and Geoscientists BC, or other types of dispute.

However, some communications will inevitably happen orally. Registrants should be diligent in maintaining detailed written records of oral communications, including phone calls and meetings, so event timelines can be recreated years later if necessary. These records can also protect Registrants if they are ever subject to an investigation or become involved in litigation. Registrants are required by the Bylaws to retain complete project documentation, including project communications, for at least 10 years after the project is complete or 10 years after the documentation is no longer in use.¹³⁸ See [Section 4.12 Work Diligently and Follow Standards of Documentation \(Principle 12\)](#) for more information on documentation.

4.13.1.2 Ongoing Communication

Because clients make major investments in projects and Registrants' services, they are entitled to be kept informed about the progress of work, problems that arise, and other relevant issues. Engineers and Geoscientists BC frequently receives complaints about Registrants who fail to respond to client requests. Registrants are not expected to reply immediately but should endeavour to respond within a reasonable amount of time.

However, clients may sometimes make unreasonable demands for extraordinarily frequent updates and/or adopt derogatory or offensive tones in communications with Registrants. Registrants are not obligated to respond to these types of demands and are not required to continue communications with parties who choose to communicate unprofessionally. Registrants are only required to communicate what is necessary to discharge their professional obligations.

Registrants should communicate the progress of their work to clients in a polite and professional manner, including providing realistic and truthful advice and timely notification when they believe a project will not be successful. Registrants must report any errors or omissions in their services immediately and take actions to remedy them. Choosing to omit important information can constitute dishonest misrepresentation.¹³⁹

4.13.1.3 Conflicting Opinions

Registrants will inevitably face situations where their opinions differ strongly from others. However, they must exercise self-control and communicate their opinions and disagreements with professional courtesy. Especially in cases of conflict, Registrants should take care to ensure that their tone and body language are consistent with their words.¹⁴⁰

Communications made in a rude, hostile, or alarmist manner are unprofessional, harmful to relationships, and can lower the public's regard for the engineering and geoscience professions.¹⁴¹ If Registrants can be perceived to be acting in their professional capacity, they may be subject to investigation and discipline by Engineers and Geoscientists BC if their conduct deviates from professional standards.¹⁴²

¹³⁸ *Bylaws* supra note 3 at s. 7.3.2.

¹³⁹ *Samuels*, supra note 32 at 205-206.

¹⁴⁰ *Practice in BC Online Seminar: Module 9*, supra note 135.

¹⁴¹ Efreem Swartz, "The Code of Ethics Requires Respectful and Professional Communication", *Innovation* (November/December 2015) at 36.

¹⁴² *Erdmann v. Complaints Inquiry Committee*, 2013 ABCA 147 at para 20; *Casey*, supra note 2 at s. 13.4.

4.13.1.4 Examples of Inappropriate Communication

The following are examples of communications that have been subject to discipline by Engineers and Geoscientists BC:

- a) A Registrant sent crude, sexist, and disrespectful emails to staff of the Architectural Institute of BC and Engineers and Geoscientists BC.¹⁴³
- b) A Registrant used an online pseudonym to send numerous threats by email regarding pollution from diesel busses, some of which included death threats.¹⁴⁴
- c) A Registrant called another Registrant's employer and falsely insinuated that they were the defendant in a civil lawsuit in the Supreme Court of British Columbia.¹⁴⁵
- d) A Registrant wrote emails that contained unfair and excessive criticisms to try and establish the incompetence of another Registrant.¹⁴⁶

4.13.2 DISCRIMINATION AND HARASSMENT

4.13.2.1 Discrimination

Discrimination in the workplace occurs when people are treated differently on the basis of prohibited factors such as race, gender, age, disability, culture, or sex.¹⁴⁷ Discrimination, harassment, or intimidation by Registrants is a clear violation of Principle 13 of the Code of Ethics and may result in investigatory and disciplinary action.

Engineers and Geoscientists BC has produced the *Professional Practice Guidelines – Human Rights and Diversity* to assist Registrants with upholding their ethical obligation to eliminate discrimination in the workplace.¹⁴⁸ These guidelines state that Registrants should proactively try to improve the working environment for all employees, clients, and associates by addressing situations involving discrimination and harassment. They also state that Registrants in leadership positions should strive to provide working environments that foster mutual respect and diversity, establish policies protecting human rights and condemning discrimination and harassment, create procedures to deal with incidents of unacceptable behaviour, and educate employees on discrimination issues. Registrants should also take personal steps to support and encourage the hiring and promotion of historical minorities in the engineering and geoscience professions.¹⁴⁹

Registrants are bound to comply with applicable human rights legislation, notwithstanding beliefs or personal convictions, otherwise disciplinary or legal action may result.

¹⁴³ *APEGBC v. Halarewicz – Determination of the Discipline Committee* (11 October 2018).

¹⁴⁴ *APEGBC v. Chrysanthous – Determination of the Discipline Committee* (12 March 2018).

¹⁴⁵ *APEGBC v. Bolton* (26 October 1999).

¹⁴⁶ *APEGBC v. Stromotich* (28 August 2007).

¹⁴⁷ *Andrews, Shaw & McPhee, supra* note 7 at 264.

¹⁴⁸ Engineers and Geoscientists BC, *Professional Practice Guidelines – Human Rights and Diversity*, 2016 [*Human Rights and Diversity Guidelines*].

¹⁴⁹ *Samuels, supra* note 32 at 142.

4.13.2.2 Harassment

Harassment is a form of discrimination and involves subjecting a person to unwanted physical or verbal behaviour that offends or humiliates.¹⁵⁰ It comes in many forms, including unwelcome remarks or jokes about someone’s race, religion, sex, age, disability or any grounds of discrimination.¹⁵¹ Harassment may involve a single unacceptable event, but it more commonly involves a series of unwanted conduct that takes place over a longer period of time.¹⁵² Registrants may not realize their behaviour constitutes harassment of others; however, a lack of awareness does not absolve Registrants of their professional obligations.¹⁵³ The fact that certain behaviour is, or was, commonplace does not make it tolerable or acceptable.¹⁵⁴

Sexual harassment is defined as “any unwelcome comment or conduct of a sexual nature.”¹⁵⁵ Examples of sexual harassment include, but are not limited to: unwanted physical contact; visual displays of sexual images; stalking; voyeurism; unwelcome remarks, questions, jokes or innuendo of a sexual nature including sexist comments or sexual invitations, or about a person’s sex, gender identity or expression, or sexual orientation; demands for sexual favours; verbal abuse, intimidation or threats of a sexual nature.¹⁵⁶ Employers should carefully draft sexual harassment policies that prohibit such conduct, and establish procedures for dealing with such allegations.¹⁵⁷

Harassment negatively affects both the victim and the workplace environment. All Registrants are responsible for preventing and addressing harassment in their workplaces. Registrants should treat their colleagues with respect and report any instances of harassment to the appropriate authorities (e.g., Human Resources

personnel or managers). See [Section 4.9 Duty to Report \(Principle 9\)](#) for more information.

See the case example below, and also [Appendix C6 Case Examples: Do Unto Others \(Principle 13\)](#) for the following example:

- Case Example: Making Demeaning and Sexual Comments

CASE EXAMPLE: HARASSING FROM A POSITION OF AUTHORITY

DESCRIPTION: An engineer admitted to engaging in unwanted conduct toward a female employee while in a position of authority at their engineering firm. He positioned himself closer to the employee than was appropriate for business communications, and while doing so, sometimes deliberately made physical contact with her. He made comments about her appearance that she reasonably perceived to be of a sexual nature. He also requested and received hugs from her. He contacted her by text, email, and telephone after hours for non-business purposes and, on occasion, asked her to perform tasks that were unrelated to her employment (e.g., minding his children while they were in the office). These interactions were unwanted by the employee, but it continued despite her verbal and written requests for him to stop.

The engineer agreed to a six-month suspension, which was stayed upon completion of an individualized in-person Sensitivity and Boundaries Coaching Program that had multiple follow-up sessions. The engineer also agreed to pay \$10,000 towards Engineers and Geoscientists BC’s legal costs.¹⁵⁸

COMMENTARY: This Registrant’s conduct constituted harassment towards the employee. This included his inappropriate comments, communications, and continued physical contact despite repeated requests for these behaviours to stop. He clearly violated Principle 13 of the Code of Ethics by failing to conduct himself with courtesy and good faith.

¹⁵⁰ Canadian Human Rights Commission, “[What is Harassment](#)”.

¹⁵¹ *Ibid.*

¹⁵² *Ibid.*; *Human Rights and Diversity Guidelines*, *supra* note 148 at 10.

¹⁵³ *Human Rights and Diversity Guidelines*, *supra* note 148 at 11.

¹⁵⁴ *Samuels*, *supra* note 32 at 171.

¹⁵⁵ Government of British Columbia, “[Core Policy Objectives & Human Resources Policies – Policy 11: Discrimination and Harassment in the Workplace](#)” (2019).

¹⁵⁶ *Samuels*, *supra* note 32 at 170; Government of British Columbia, “[Core Policy Objectives & Human Resources Policies – Policy 11: Discrimination and Harassment in the Workplace](#)” (2019).

¹⁵⁷ *Samuels*, *supra* note 32 at 170.

¹⁵⁸ *APEGBC v. Gao* (24 January 2016).

4.13.3 EMPLOYER RESOURCES

Registrants should not use their employers' or clients' equipment, supplies, laboratories, office facilities, or paid time to do work outside the scope of their employment without consent. Registrants are entrusted with tangible property (e.g., physical records, laptops) and intangible property (e.g., intellectual property, trade secrets, confidential information, client lists) and are required to use this property only for their employer's benefit, unless their employer consents to use for another purpose (for example, an employer who supplies a company cell phone, but has a policy that allows personal use).¹⁵⁹

See [Appendix C6 Case Examples: Do Unto Others \(Principle 13\)](#) for the following additional example:

- Case Example: Abusing Employer Resources to Work for Another Company

4.13.4 MANAGERIAL AND LEADERSHIP ROLES

Principle 13 of the Code of Ethics applies to how managers and employers act toward their subordinates and employees, including employment practices such as hiring, firing, performance reviews, continuing education, and day-to-day supervision. Relevant employment standards are often legislated, such as the *Employment Standards Act*, R.S.B.C. 1996, c. 113, which applies to Registrants who are professional geoscientists and geoscientists-in-training (though not to Registrants who are professional engineers and engineers-in-training).¹⁶⁰

Leaders' ethical behaviour can also affect their entire team's ethical choices. In general, managers and employers should take care to treat their subordinates and employees with respect, promote workplace safety, and avoid discrimination.

Employers and managers should be familiar with the backgrounds, accomplishments, and qualifications of their employees and subordinates, in order to only assign work that is within their areas of competence (Principle 2).

Registrants in management positions may be asked to provide job references for others. Principle 13 describes the duty of Registrants to give honest and fair professional comment. Registrants who act as references should provide private comments that fairly and accurately reflect the abilities of the people for whom they are providing references. Honest and fair references help ensure that employers and clients obtain realistic assessments of Registrants being considered for positions or projects, and maintains the dignity of the engineering and geoscience professions.

4.13.5 WORK REVIEWS

Registrants may be asked to review work or documents that have been prepared by other Registrants without taking professional responsibility. Reviews are a regular part of the engineering and geoscience professions, and organizations should have regular work reviews as part of their quality assurance programs. Engineers and geoscientists frequently have their calculations reviewed for accuracy by colleagues, employees, or partners. Peer reviews are an essential part of good professional practice, as they improve the quality of the work and reduce the likelihood of mistakes being made. In some circumstances, legislation even mandates review.

Registrants should be willing to give and receive honest reviews of performance and technical project aspects. They should neither object to having their work reviewed nor to reviewing another's work. However, reviewers must be competent with respect to the material they are asked to review.

¹⁵⁹ *Samuels*, *supra* note 32 at 53.

¹⁶⁰ *Employment Standards Act Regulations*, B.C. Reg. 396/95, s. 31(f).

Reviewers should be objective and prepared to provide an honest opinion.¹⁶¹ Receiving feedback and learning from it is one of the best ways to grow as a professional. If differences of opinion arise, Registrants are encouraged to seek to better understand others' positions.

4.13.5.1 Considerations for Work Reviews

The following actions should be considered by parties engaged in work reviews:

1. If the review is to be a formal independent review, before agreeing to act as independent reviewer, Registrants should inform the party requesting the review of any pre-existing relationship with the Registrant whose work will be reviewed, or the project or client to which it relates. A conflict of interest may arise if the parties have worked together extensively in the past, preventing the review from remaining objective. Prior relationships do not necessarily disqualify people from acting as reviewers, but the party requesting the review should be able to make this decision with knowledge of all relevant facts. See [Section 4.8 No Conflicts of Interest \(Principle 8\)](#) for more on this issue.
2. For any review, best practice suggests that reviewers should try to contact the Registrant whose work they are reviewing, although this is not required. If appropriate, communication between these two parties may improve the quality of reviews. Reviewers may be able to obtain relevant information about the conditions and underlying assumptions of the assignment.

3. Registrants whose work is being reviewed should not be secretive or guarded. They should instead be forthcoming with relevant information, so long as the duty of confidentiality is not breached.¹⁶² Some requests from reviewers may also be refused on reasonable grounds, such as requests for personal information.¹⁶³
4. Reviews should be conducted in the utmost of good faith and with professional courtesy. Reviewers should not use malicious language or misleading statements which could unfairly harm others' reputations. However, reviewers must mention any serious issues they discover using objective language and fulfill their duty to report under Principle 9 of the Code of Ethics.
5. Reviewers should avoid any action that could be perceived as soliciting further work from another Registrant's client during a review, unless the professional arrangement has already ended between the client and the Registrant whose work is being reviewed. However, this may be very difficult to achieve in some circumstances, such as in small practice communities. Generally, best practice suggests that reviewers should try not to accept offers to work on the project under review.¹⁶⁴

4.13.5.2 Appropriate Language for Work Reviews

At times, reviewers may discover differences of professional opinion or errors in work. However, there is a fine line between writing an ethical review, which objectively describes flaws and possible consequences, and writing an unethical review, which makes subjective and disparaging personal comments.¹⁶⁵

¹⁶¹ Engineers Canada, *Public Guideline on the Code of Ethics*, March 2016, at s. 3.5 [*EC Guideline*].

¹⁶² Professional Engineers Ontario, *Professional Engineers Reviewing Work Prepared by Another Professional Engineer*, 2011, at 4 [*PEO Reviewing Work*].

¹⁶³ *Ibid.* at 18.

¹⁶⁴ *EC Guideline*, *supra* note 161 at 17.

¹⁶⁵ *Ibid.* at 13.

For illustration, imagine that a reviewer finds several negligent decisions and unacceptable work. Compare the following examples of language the reviewer could use in their review:

ACCEPTABLE WORDING

Sample Review: “There are several defects in the design of the wastewater treatment centre that render it unfit for use. The estimated daily sewage flow calculated by the design engineer is approximately 40% lower than the actual value, and the septic field constructed is approximately one half of the size it needs to be.”

Commentary: This review remains objective throughout. It plainly describes the work and its flaws, focusing on the work and not the person responsible. It does not contain passionate language or accusations of negligence or incompetence.

UNACCEPTABLE WORDING

Sample Review: “The designer has made many serious errors in the design of the wastewater treatment centre that render it completely unfit for use. The designer has grossly underestimated daily sewage flow, as much as 40% lower than the correct value, and consequently, has erroneously designed a septic field that will quickly fail. It appears that the designer has never been educated in how to design a proper septic field.”

Commentary: This review contains emotionally charged language that is unnecessary to assess the technical aspects of the project. The review goes beyond making factual descriptions and assessments of the work, and directly criticizes the professional competence of the Registrant whose work is being reviewed. If concerns about Registrant competence arise during work reviews, reviewers should inform Engineers and Geoscientists BC, rather than insulting Registrants in their reviews. It is inappropriate and unethical to insult another Registrant, even if that Registrant has acted in a negligent manner.

4.13.5.3 Confidentiality and Work Reviews

Any communication and information exchanged between reviewers and those under review should be treated as confidential and only directly submitted to Registrants, clients, or employers, unless directed otherwise (Principle 8 of the Code of Ethics).

Upon review completion, reviewers should return all documents to their original owner or store them securely. Further, reviewers should respectfully disclose their conclusions to Registrants under review so they can learn from and respond to the findings.

In certain situations, reviews may need to be completed in secret, but this is the exception and not the norm. However, reviewers should not disclose findings to the public or third parties unless concerns sufficient to trigger the duty to report are engaged.¹⁶⁶ See also [Section 4.9.6.1 Conflicting Duties](#) under [Section 4.9 Duty to Report \(Principle 9\)](#).

4.13.6 PROCUREMENT AND CONSULTING: BIDDING, TENDERING, AND REQUESTS FOR PROPOSALS

Relationships between clients, consultants, contractors, and subcontractors will vary depending on the arrangements decided upon by the clients. The selection of consultants, contractors, and subcontractors often involves fee-based competition for work. Principle 13 of the Code of Ethics applies to this selection process and requires all parties to conduct themselves with fairness, courtesy, and good faith.

Tendering and bidding are expansive topics in their own right, each governed by specific rules and laws. Given the complexity of their legal framework, this section will cover only a few of the ethical considerations inherent in tendering and bidding processes.

¹⁶⁶ Association of Professional Engineers and Geoscientists of Alberta, [Guideline for Ethical Practice Version 2.2](#), 2013, at 26.

Registrants who are involved in tendering and bidding activities must follow the laws that govern such processes, as well as the specific rules and criteria for each tender. The legal rules of tendering impose a duty of fairness on owners and their agents with respect to their treatment of bidders and application of the rules.¹⁶⁷

4.13.7 ADVERTISING

Registrants should avoid endorsing a product or service for the public, unless the conditions for the use of that item are very clearly known, explicitly defined, and communicated to all potential users.

However, if these requirements are satisfied, Registrants involved in the advertising of a product, service, or asset must only offer honest and fair comments and be careful to avoid careless exaggerations.¹⁶⁸ To uphold Principle 1 of the Code of Ethics, Registrants must ensure that their companies' advertisements are accurate and that the company advertising does not suggest capabilities of a product or service that are inconsistent with the design and its intended use.

4.13.8 SCIENTIFIC PUBLISHING

Some Registrants may publish scientific papers during their careers. Scientific publication is an important method of communicating data, information, and ideas to society and the global scientific community.¹⁶⁹

While Registrants do not authenticate scientific papers in the same way they authenticate work for clients, Registrants who engage in research and publishing remain bound to the high ethical standards set by the Engineers and Geoscientists BC Code of Ethics.

4.13.8.1 Falsification of Data

Under Principle 13 of the Code of Ethics, Registrants owe a duty of good faith when publishing any content, including scientific reports. If a published document contains falsified or misleading data, it can have serious negative consequences. Inaccuracies in engineering and geoscience research may result in wasted resources, deficiencies in future research, damage to the reputation of researchers, and negative impacts on public perception.¹⁷⁰

Registrants must ensure that any data they release is accurate, founded on solid evidence, and not misleading to the public. For more information about preventing the publication of falsified or misleading data, Registrants may consult the Singapore Statement on Research Integrity, a global guide to the responsible conduct of research.¹⁷¹

4.13.8.2 Acknowledging the Work of Others and Avoiding Plagiarism

Registrants are prohibited from plagiarizing, which is the act of passing off someone else's work as if it is your own. Plagiarism is a violation of Principles 11 and 13 of the Code of Ethics, and if the work is protected by copyright and reproduced without permission, plagiarism may also be a violation of copyright law and therefore a contravention of Principle 3 as well.

In scientific publishing, Registrants can plagiarize by failing to provide a source for a quotation, changing information slightly without giving appropriate credit, claiming someone else's research as their own, or reusing part of their own past work without citing the original source of the information.¹⁷²

¹⁶⁷ Karen Martin, *Procurement: The Integrity of the Bidding Process and the Role of the Consultant*, Course materials (Continuing Legal Education Society of British Columbia, April 2008) at 1.1.1.

¹⁶⁸ *Andrews, Shaw & McPhee*, *supra* note 7 at 247-248.

¹⁶⁹ The Geological Society, "[Publishing Ethics and Disclaimer](#)".

¹⁷⁰ Max Wyss and Silvia Peppoloni, *Geoethics: Ethical Challenges and Case Studies in Earth Sciences* (Amsterdam: Elsevier, 2015) at 72 [*Wyss and Peppoloni*].

¹⁷¹ David B. Resnik and Adil Shamoo, "[The Singapore Statement on Research Integrity](#)" (2011) 18:2 *Accountability in Research Policies & Quality Assurance* 71.

¹⁷² *Wyss and Peppoloni*, *supra* note 170 at 99, 101.

5.0 COMPLIANCE

This section provides details on the various compliance mechanisms at Engineers and Geoscientists BC that work to verify that Registrants are meeting the requirements of the Code of Ethics. These compliance mechanisms include:

1. a complaints process;
2. an audit program;
3. practice reviews; and
4. legal enforcement.

5.1 COMPLAINTS PROCESS

Adherence to the Code of Ethics is primarily enforced through the formal complaints process at Engineers and Geoscientists BC. As described in Principle 9 of the Code of Ethics, all Registrants have a duty to report conduct that poses a risk of significant harm to people or the environment or that is illegal or unethical.

This requirement is one of the ways Engineers and Geoscientists BC becomes aware of unethical conduct. Individuals or entities other than Registrants may also file formal complaints against Registrants using the Engineers and Geoscientists BC complaints process.

After complaints are received, they may be further investigated by the Engineers and Geoscientists BC Investigation Committee. The Investigation Committee may resolve the matter by means of a consent agreement or issue a citation for a discipline hearing to be commenced by the Discipline Committee.

Registrants who are found to have breached the Code of Ethics may become subject to a variety of sanctions, including completing seminars, courses, and/or exams; undergoing practice reviews; abiding by limits or condition imposed on their practice; paying fines and/or costs; or having their registration with Engineers and Geoscientists BC suspended or cancelled.

5.2 AUDIT PROGRAM

The annual audit program is a proactive program intended to ensure Registrants understand and are meeting their requirements under the *Act*, regulations, Bylaws, and standards. Audits are initiated through a random selection process based on risk and are focused on assessing compliance with quality management requirements, relevant professional practice guidelines, declared areas of practice, and the continuing education program. Auditors will also review evidence of compliance with the Code of Ethics.

Audits may result in one of three determinations: compliance, minor non-conformance, or major non-conformance. Where an audit finds major non-conformances, a practice review may be initiated, or the file may be referred to the Engineers and Geoscientists BC Investigation Committee.

5.3 PRACTICE REVIEWS

A practice review is a reactive review of a Registrant's practice that is initiated when significant issues have been identified through the audit process and/or the complaint and investigation process.

In addition to a targeted review of the identified issues, a practice review includes a review for infractions of the Code of Ethics. If a practice review identifies non-conformances, the resulting measures may include corrective action requirements, remedial training requirements, practice restrictions, or referral to the Engineers and Geoscientists BC Investigation Committee.

5.4 LEGAL ACTION

The actions that constitute some breaches of the Code of Ethics may also constitute breaches of applicable law or contractual legal obligations and could give rise to civil proceedings in court brought by other parties, or regulatory proceedings brought by various levels of government. In some cases, those same actions could also constitute criminal offences and trigger criminal prosecution.

6.0 RELATED DOCUMENTS

Citations and related references are located in the main text and in the footnotes that appear throughout this document.

Engineers and Geoscientists BC, *Guide to the Standard for the Authentication of Documents Version 3.0*, February 17, 2021, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 2, 2021, <https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Guides>.

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Engineers and Geoscientists BC, *Guide to the Standard for Use of Professional Practice Guidelines Version 1.0*, February 17, 2021, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 2, 2021, <https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Guides>.

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Engineers and Geoscientists BC, *Guide to the Standard for Retention of Project Documentation Version 2.0*, February 17, 2021, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 2, 2021, <https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Guides>.

Engineers and Geoscientists BC, *Guide to the Standard for Documented Field Reviews During Implementation or Construction Version 2.0*, February 17, 2021, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 2, 2021, <https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Guides>.

Engineers and Geoscientists BC, *Guide to the Standard for Documented Independent Review of Structural Designs Version 2.0*, February 17, 2021, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 2, 2021, <https://www.egbc.ca/Practice-Resources/Individual-Practice/Quality-Management-Guides>.

Engineers and Geoscientists BC, *Regulation of Firms Permit to Practice Manual Version 1.0*, March 8, 2021, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 9, 2021. <https://www.egbc.ca/Registration/Registrant-Firms/Firm-Regulation>.

Engineers and Geoscientists BC, *Guide to the Continuing Education Program Version 1.0*, January 19, 2021, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 2, 2021, <https://www.egbc.ca/Continuing-Education/Continuing-Education/Program-Overview>.

Engineers and Geoscientists BC, *Professional Practice Guidelines – Expert Witness Version 1.1*, July 2016, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 2, 2021, <https://www.egbc.ca/Practice-Resources/Individual-Practice/Guidelines-Advisories>.

Engineers and Geoscientists BC, *Professional Practice Guidelines – Human Rights and Diversity Version 1.0*, April 15, 2016, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 2, 2021, <https://www.egbc.ca/Practice-Resources/Individual-Practice/Guidelines-Advisories>.

Engineers and Geoscientists BC, *Professional Practice Guidelines – Sustainability Version 1.1*, April 2016, (Burnaby, BC: Engineers and Geoscientists BC), last accessed March 2, 2021, <https://www.egbc.ca/Practice-Resources/Individual-Practice/Guidelines-Advisories>.

7.0 APPENDICES

APPENDIX A: Supplementary Information – Conflicts of Interest (Principle 8)..... 56

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APPENDIX A: SUPPLEMENTARY INFORMATION – CONFLICTS OF INTEREST (PRINCIPLE 8)

This appendix supplements the information in [Section 4.8 No Conflicts of Interest \(Principle 8\)](#), specifically, [Section 4.8.3 Compensation and Contingency Fee Arrangements](#) and [Section 4.8.5 Confidential Information](#).

A1 PROHIBITED CONTINGENCY FEE ARRANGEMENTS

See also [Section 4.8.3 Compensation and Contingency Fee Arrangements](#).

Contingency fee arrangements are particularly prone to creating conflicts of interest. Registrants should be cautious in unclear situations.

Registrants are prohibited from entering into contingency fee arrangements that have or could be perceived by a reasonable person as having the potential to compromise the Registrant’s judgment. The following sections provide examples of contingency fee arrangements that are prohibited by the Engineers and Geoscientists BC Code of Ethics because they create conflicts of interest.

A1.1 DEPENDENT ON VOTER APPROVAL

If compensation for a Registrant is dependent on voter approval, they will be incentivized to compromise their work in order to make it look more appealing to voters. This jeopardizes public safety and the independence of the engineering and geoscience professions.

CASE EXAMPLE (HYPOTHETICAL): CONTINGENCY FEE DEPENDENT ON VOTER APPROVAL

DESCRIPTION: An engineer was retained by a public body to determine the most economical method for properly designing and constructing a water supply system. The engineer was required to prepare an engineering report that included an estimated cost of the project and the amount of bond issue required.¹⁷³ The retainer contract stated that if voters approved the bond issue, the engineer would be paid for their preliminary services and paid to prepare plans and specifications for the project. However, if voters did not approve the bond issue, the engineer would not be paid for preliminary services.

The NSPE Board of Ethical Review determined that this contingency fee arrangement would affect the impartiality and independent judgment of the engineer, because this engineer would be incentivized to make the cost and bond issue estimate look appealing for voters in order to be paid, likely at the cost of principled and safe engineering.¹⁷⁴

COMMENTARY: Payment to this engineer was dependent on approval of the bond issue, which in turn was dependent upon project design and cost effectiveness. While determining the most economical method for properly designing and constructing the project, this engineer’s judgment would be influenced by the knowledge that approval of the bond issue would determine whether the engineer receives compensation for preliminary services.

Therefore, this contingency fee arrangement was deemed unethical because it incentivized the cutting of corners.

¹⁷³ Adam Hayes, “Bond”, *Investopedia* (25 June 2019).

¹⁷⁴ National Society of Professional Engineers Board of Ethical Review, “Contingent Fee Contracts (Case No. 65-4)”, *Carnegie Mellon University*.

A1.2 EXPERT WITNESSES: DEPENDENT ON OUTCOME OF CASE

Registrants engaged to provide an expert opinion in return for compensation should review the Engineers and Geoscientists BC *Professional Practice Guidelines – Expert Witness* and refer to Principle 7 of the Code of Ethics.¹⁷⁵ See also [Section 4.7 Distinguish Facts from Assumptions and Opinions \(Principle 7\)](#).

When acting as an expert witness, Registrants are prohibited from requesting, proposing, or accepting fees that are contingent on the outcome of the case. If compensation for an expert opinion is contingent on the outcome of a case, a potential conflict exists between the expert's interests and the interest of the public in the administration of justice, because there would be a strong incentive to advocate for their client. The public relies on the proper exercise of the expert Registrant's judgment for the fairness of the justice system.¹⁷⁶

If Registrants acting as expert witnesses do advocate for their client, their evidence will likely become inadmissible and they may be investigated and disciplined by Engineers and Geoscientists BC for engaging in professional misconduct.

CASE EXAMPLE: CONTINGENCY FEE DEPENDENT ON OUTCOME OF CASE

DESCRIPTION: An engineer was approached to act as an expert witness regarding the braking mechanism on a farm tractor, which was not an area of their expertise. This engineer's agreement to act as an expert witness was initially based on an hourly fee. However, part way through the trial proceedings they agreed to change the basis of the engineer's retainer to a contingency fee, meaning the engineer would only receive payment if the party that retained them was successful at trial.

The Engineers and Geoscientists BC Investigation Committee found that this engineer had demonstrated incompetence, negligence, and professional misconduct in their reports and expert testimony. The engineer was not properly qualified by training or experience to prepare the reports or give expert testimony. Additionally, it was unprofessional to continue an engineering engagement on a contingency fee basis where payment depended upon a successful outcome at trial.

The engineer entered into a consent resolution and agreed to a three-month suspension of their membership.¹⁷⁷

COMMENTARY: The role of an expert witness is to provide guidance on matters that may be outside the knowledge of the decisionmaker. Therefore, expert witnesses must ensure that they are properly qualified by training or experience to provide the necessary expertise. Their testimony must be fair, objective, and non-partisan. These fundamental requirements are undermined when working under an arrangement in which payment is contingent upon a successful outcome at trial.

¹⁷⁵ *Expert Witness Guidelines*, *supra* note 65.

¹⁷⁶ Brian M. Samuels and Doug R. Sanders, *Practical Law of Architecture, Engineering, and Geoscience*, 3rd ed (Toronto: Pearson, 2016) at 169.

¹⁷⁷ *APEGBC v. Hill*, BC Professional Engineer (October 1991).

A1.3 LEGISLATED PROHIBITIONS

Registrants must also adhere to legislated standards that prohibit contingency fee arrangements, such as National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects and NI 51-101 Standards of Disclosure for Oil and Gas Activities.¹⁷⁸

Registrants engaged in preparing technical reports should thoroughly review the NI 43-101 and NI 51-101 standards, which contain requirements relating to the independence of a qualified person.

To illustrate the application of legislated prohibitions on contingency fee arrangements, this section of this *Guide* focuses on NI 43-101 in more depth. Following are the rules governing the disclosure of scientific and technical information related to mineral projects owned or explored by companies that report this information on stock exchanges overseen by the Canadian Securities Administrators (CSA). Upon becoming reporting issuers, NI 43-101 requires these companies to file a technical report, which must be prepared by or under the supervision of one or more “qualified persons.”¹⁷⁹ In certain situations, these qualified persons must be “independent of an issuer.”¹⁸⁰ If this is the case, it is inappropriate for their compensation to be in the form of a contingency fee arrangement.

A “qualified person” is defined in section 1.1 of NI 43-101 as an individual who:

- a) is an engineer or geoscientist with a university degree, or equivalent accreditation, in an area of geoscience, or engineering, relating to mineral exploration or mining;
- b) has at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, that is relevant to his or her professional degree or area of practice;

- c) has experience relevant to the subject matter of the mineral project and the technical report;
- d) is in good standing with a professional association; and
- e) in the case of a professional association in a foreign jurisdiction, has a membership designation that
 - i. requires attainment of a position of responsibility in their profession that requires the exercise of independent judgment; and
 - ii. requires
 - a. a favourable confidential peer evaluation of the individual’s character, professional judgement, experience, and ethical fitness; or
 - b. a recommendation for membership by at least two peers, and demonstrated prominence or expertise in the field of mineral exploration or mining.¹⁸¹

A “qualified person” does not include engineering or geoscience technicians, engineers or geoscientists in training, and other designations that restrict an individual’s authorized area of practice or require the individual to be supervised by a professional engineer, professional geoscientist, or equivalent.¹⁸²

A qualified person is “independent of an issuer” if “there is no circumstance that, in the opinion of a reasonable person aware of all relevant facts, could interfere with the qualified person’s judgment regarding the preparation of the technical report.”¹⁸³ However, the following are situations in which a conflict of interest does exist.

“[A] qualified person is not independent when the qualified person:

- a) is an employee, insider, or director of the issuer;

¹⁷⁸ NI 43-101, *supra* note 81; NI 51-101, *supra* note 81.

¹⁷⁹ NI 43-101, *supra* note 81 at ss. 4.1-2, 5.1.

¹⁸⁰ NI 43-101, *supra* note 81 at s. 5.3.

¹⁸¹ NI 43-101, *supra* note 81 at s. 1.1.

¹⁸² Canadian Securities Administrators, “[Companion Policy 43-101CP to National Instrument 43-101 Standards of Disclosure for Mineral Projects](#)” (25 February 2016) at 5 [*Companion Policy 43-101CP*].

¹⁸³ NI 43-101, *supra* note 81 at s 1.5.

- b) is an employee, insider, or director of a related party of the issuer;
- c) is a partner of any person or company in paragraph (a) or (b);
- d) holds or expects to hold securities, either directly or indirectly, of the issuer or a related party of the issuer;
- e) holds or expects to hold securities, either directly or indirectly, in another issuer that has a direct or indirect interest in the property that is the subject of the technical report or in an adjacent property;
- f) is an employee, insider, or director of another issuer that has a direct or indirect interest in the property that is the subject of the technical report or in an adjacent property;
- g) has or expects to have, directly or indirectly, an ownership, royalty, or other interest in the property that is the subject of the technical report or an adjacent property; or
- h) has received the majority of their income, either directly or indirectly, in the three years preceding the date of the technical report from the issuer or a related party of the issuer.”¹⁸⁴

A contingency fee arrangement would therefore be prohibited in situations where a qualified person is required to be independent under NI 43-101. Otherwise, the qualified person’s financial interest in the success of the project would create a conflict of interest. Registrants engaged in preparing technical reports for reporting issuers should thoroughly review NI 43-101 and NI 51-101.

A2 CONFIDENTIAL INFORMATION

See [Section 4.8.5 Confidential Information](#) for a more discussion of confidential information.

A2.1 DEFINING CONFIDENTIAL INFORMATION: GENERAL EXPERTISE VERSUS PROPRIETARY INFORMATION

Registrants gain technical knowledge, expertise, and skills through their work experience and business relationships. It is appropriate and expected that Registrants will apply their acquired general knowledge and expertise when working for new clients and employers. The duty of confidentiality owed to former employers does not require Registrants to forget general technical knowledge and expertise accumulated during their careers, when the knowledge is not client specific.

For example, if a Registrant spends ten years employed by a marine engineering company, and during that time acquires expertise in designing pontoons and jetties, that Registrant can apply this knowledge upon employment with a different company. However, that Registrant would be prohibited from duplicating or using a unique pontoon design technique that was patented by their former employer.

Care should be taken regarding trade practices that may be unique or proprietary. Such information is typically the exclusive property of a client or employer, rather than knowledge accessible to the public, and the duty of confidentiality applies.¹⁸⁵ Proprietary information usually has a competitive aspect that necessitates keeping this information confidential, otherwise, business competitors would gain an unfair advantage.

¹⁸⁴ *Companion Policy 43-101CP, supra* note 182 at s. 3.5(1).

¹⁸⁵ *Gannon, supra* note 84 at 107.

A2.2 MISUSE OF CONFIDENTIAL INFORMATION: INSIDER TRADING

In Canada, as well as in many other countries, the law prohibits individuals from dealing in the stocks or shares of publicly traded companies when they have information that is not generally available to the public and might affect the value of stocks or shares in these companies.

This type of information is referred to as “market-sensitive information” or “undisclosed material facts”.¹⁸⁶ Encountering market-sensitive information in the course of professional work creates a conflict of interest for Registrants who could benefit from using this secret information to make a profit. For example, Registrants might gain knowledge of a company’s:

- a) plan to launch a new service or product;
- b) plan to issue new shares, or make a major change in financing;
- c) plan to undertake a sensitive project that could have an impact on share price; or
- d) forthcoming negative news about a product that may be detrimental to share value.¹⁸⁷

Registrants must not use any market-sensitive information to trade shares. Doing so would not only be unethical under Principle 8 of the Code of Ethics but also illegal under Canadian securities law. Registrants must also refrain from sharing market-sensitive information with any other person, or encouraging someone else to trade shares based on inside information.¹⁸⁸

A2.3 LEGAL PRIVILEGE AND CONFIDENTIALITY

Registrants retained as expert witnesses are bound by the general rules of litigation, including rules of privilege and disclosure. The opinion of an expert witness is considered part of legal counsel’s preparation and is therefore covered by litigation privilege.¹⁸⁹ Registrants are prohibited from disclosing information received or developed through their involvement in litigation unless permission is given by the client, the information loses privilege once filed in court, or the litigation is complete. Expert witnesses are often asked to keep case details confidential and may sign a confidentiality agreement to this effect.¹⁹⁰

A conflict of interest may arise when Registrants retained as expert witnesses are tempted to share case details with colleagues and/or friends, particularly when the cases are interesting or especially relevant to their field of work. In order to uphold Principle 8 of the Code of Ethics, experts must be careful to maintain legal privilege and confidentiality at all times.

In rare circumstances, a Registrant’s obligations under the Code of Ethics may conflict with the rules of privilege. Registrants should seek advice from legal counsel if they find themselves in this situation.

A2.3.1 Public Safety Exception

In rare circumstances, Registrants may gain knowledge of an imminent danger to the public while acting as an expert witness. This creates a difficult dilemma because their obligation to maintain legal privilege and confidentiality conflicts with their obligation to hold paramount the safety, health, and welfare of the public under Principle 1 of the Code of Ethics. Registrants in this situation should immediately seek independent legal advice.

¹⁸⁶ *Securities Act*, R.S.B.C. 1996, c. 418 [*Securities Act*]; *The Corporations Act 2001* (Cth).

¹⁸⁷ *Gannon*, *supra* note 84 at 108-109.

¹⁸⁸ *Securities Act*, *supra* note 186 at s. 57.2.

¹⁸⁹ *Expert Witness Guidelines*, *supra* note 65 at 4.

¹⁹⁰ *Ibid.*

Generally, all legally privileged information must be kept confidential. However, some narrow exceptions exist and may apply, for example when privileged correspondence is criminal, when disclosure is necessary to protect public safety or when innocence is at stake. If Registrants believe that an exception to privilege may apply to information they become aware of, they should obtain independent legal advice on whether the exception applies in their circumstances. See also [Section 4.9 Duty to Report \(Principle 9\)](#) for a more detailed discussion.

A2.3.2 Switching Sides

Another situation may arise where a party to a dispute hires a Registrant as an expert witness, but when it appears that the Registrant's opinion will be against their interests, they dismiss the Registrant. The question is whether it would be appropriate for the Registrant to then "switch sides" and be hired by the opposing party in the dispute.

Theoretically, because experts are concerned with objective truth and not with the outcome of the trial, it may be permissible to switch sides. However, the Registrant would be in a precarious ethical situation if they have been exposed to confidential or privileged information about the original party's case. If the Registrant signed a confidentiality or nondisclosure agreement when retained by the original party, there may also be legal limitations on working for the opposing party.

In order to avoid concerns about the objectivity and loyalty of an expert witness, Registrants acting as experts should avoid switching sides during litigation.

For more information on acting as expert witness, refer to [Section 4.7 Distinguish Facts from Assumptions and Opinions \(Principle 7\)](#) and the Engineers and Geoscientists BC *Professional Practice Guidelines – Expert Witness*.¹⁹¹

¹⁹¹ *Expert Witness Guidelines, supra* note 65.

APPENDIX B: SUPPLEMENTARY INFORMATION – DUTY TO REPORT (PRINCIPLE 9)

This appendix supplements the information in [Section 4.9 Duty to Report \(Principle 9\)](#), specifically, [Section 4.9.7 Hesitations or Uncertainty About Reporting](#).

B1 WHISTLEBLOWING

On rare occasions, an employer or client may fail to rectify a harmful, illegal, or unethical situation after being given notice of the situation by a Registrant.

If the internal lines of responsibility have been exhausted and there is no other means of solving the issue—for example, if senior management is participating in the illegal conduct, is aware of the illegality, or has no intention of reforming—then it is the duty of Registrants to “blow the whistle” by alerting people or authorities outside the organization.¹⁹²

B1.1 DECIDING TO TAKE ACTION

Registrants should first consider whether whistleblowing is necessary, whether their information is correct, and whether their duty to the public requires them to take action notwithstanding their duty to their employer or client.

If a situation creates an immediate and serious threat to public safety, Registrants are required to take urgent action and report the appropriate individuals and authorities. For example, if a Registrant discovers that their employer is knowingly constructing residential properties on unsafe soil, there is a serious threat to public safety; therefore, an immediate response is required.

In contrast, if a Registrant discovers that their employer is routinely pirating software and violating copyright

laws, there is no great urgency and informal discussions with management may resolve the problem.¹⁹³

If Registrants are uncertain about what to do, they can consult with Engineers and Geoscientists BC practice advisors for advice.

See the end of this appendix for hypothetical examples of premature and justified whistleblowing cases.

B1.2 WHISTLEBLOWER PROTECTION

The risk of personal repercussions, including loss of employment, may understandably cause Registrants to hesitate to “blow the whistle”. Generally, complainants must participate in the Engineers and Geoscientists BC complaint process and be identified at the disciplinary stage.

However, if Engineers and Geoscientists BC is made aware of a serious threat to the public, either through an anonymous complaint, or through someone who seeks advice but is unwilling to make a formal complaint, Engineers and Geoscientists BC may open an independent investigation without the involvement of a complainant.¹⁹⁴

The *Act* also provides some protection for whistleblowers. Section 103 of the *Act* prohibits anyone from evicting, discharging, suspending, expelling, intimidating, coercing, discriminating, imposing any penalties against, or discriminating against a Registrant who:

- a) has reported a matter as described in section 58 [duty to report] with respect to a registrant or other persons,
- b) complains or is named in a complaint under section 65 [complaints], or

¹⁹² *PEO Practice*, *supra* note 72 at 11.

¹⁹³ *Andrews, Shaw & McPhee*, *supra* note 7 at 237-238.

¹⁹⁴ *Bylaws*, *supra* note 3 at s. 9.7.1; *PGA*, *supra* note 4 at s. 66(1)(a).

- c) gives evidence or otherwise assists in respect of a prosecution, a complaint or another proceeding under the Act.¹⁹⁵

If a whistleblower experiences reprisal, they may report it to Engineers and Geoscientists BC or the Office of the Superintendent of Professional Governance, or apply to the Supreme Court for an injunction.¹⁹⁶

B1.3 LIABILITY INSURANCE

All individual Registrants of Engineers and Geoscientists BC have access to a secondary limited liability insurance program that provides \$75,000 coverage for loss of income related to whistleblowing and \$75,000 for legal advice related to whistleblowing.¹⁹⁷

CASE EXAMPLE (HYPOTHETICAL): PREMATURE WHISTLEBLOWING

DESCRIPTION: Timothy, a junior engineer employed by a firm specializing in geotechnical engineering, realized that his supervisor’s designs for a project currently under construction include dangerous oversights and miscalculations. His supervisor designed piles that were overstressed and did not have proper lateral supports, creating a risk of structure collapse.

Timothy immediately alerted Engineers and Geoscientists BC and a local newspaper.

COMMENTARY: In this scenario, although there was a hazardous situation, Timothy “blew the whistle” too early. The more appropriate course of action would have been to first alert his supervisor of the errors contained in the design. His supervisor would then be obligated to alter the design and make any necessary corrections.

It is unethical to prematurely “blow the whistle” because it violates Registrants’ duty to maintain confidentiality under Principle 8 of the Code of Ethics. If Timothy’s firm had still insisted on proceeding with the dangerous designs after being alerted to their flaws, it would then have been appropriate for Timothy to alert an external authority.

CASE EXAMPLE (HYPOTHETICAL): JUSTIFIED WHISTLEBLOWING

DESCRIPTION: Ulla recently started a new job working as a geoscientist for a large mining company. One of her first assignments was to assess the company’s current method of extracting ore from their largest mine site.

During one of her visits to the site, Ulla noticed two potential hazards. She noticed coal dust building up on some of the resting equipment and overheard a miner complaining that the methane detectors did not appear to be functioning. She mentioned these concerns to her supervisor, who told her not to worry about it because he had “seen much worse” at other mines.

Ulla still felt uneasy about the potential hazards she observed and decided to email a senior director of the company who she happened to know quite well. The director dismissed Ulla’s concerns and said, “she should focus on the project she was hired to do if she wants to progress quickly within the company”. The director also said that the company had other employees to assess the safety of the mine and rectify immediate problems, insinuating that her employment may be terminated should she choose to report her concerns outside the company.

COMMENTARY: In this scenario, Ulla observed dangerous conditions at the mine. Ulla informed her supervisor of these conditions, and when her concerns were dismissed, she informed a higher level of management.

Because the company was aware of legitimate hazards and doing nothing to correct the problem, Ulla should now “blow the whistle” and alert the appropriate external authorities.

In doing so, Ulla would fulfill both her duty to report under Principle 9 of the Code of Ethics, and her duty to hold paramount the safety, health, and welfare of the public, including the protection of the environment and the promotion of health and safety in the workplace, under Principle 1 of the Code of Ethics.

¹⁹⁵ *PGA, supra* note 4 at s. 103.

¹⁹⁶ *PGA, supra* note 4 at s. 107; OSPG Guidance, *supra* note 98.

¹⁹⁷ “Secondary Professional Liability Insurance Program”, *Engineers and Geoscientists BC*.

APPENDIX C: ADDITIONAL CASE EXAMPLES ILLUSTRATING CODE OF ETHICS PRINCIPLES

The following case examples supplement those provided in the main sections of this *Guide to the Code of Ethics*. Cross-references to the applicable sections appear before each example. See also [Section 3.0 The Code of Ethics](#) for the full list of principles.

C1 CASE EXAMPLES: KNOW YOUR LIMITS (PRINCIPLE 2)

These case examples further illustrate Principle 2 of the Code of Ethics, as described in [Section 4.2 Know Your Limits](#).

CASE EXAMPLE: INADEQUATE ANALYSIS AND INAPPROPRIATE TECHNIQUES

DESCRIPTION: An engineer admitted to demonstrating professional misconduct in connection with a composite lock-block wall and rock-fill slope. The engineer failed to conduct an adequate slope stability and factor of safety analysis for the project by basing their analysis on an incorrect slope angle, failing to account for known groundwater flows, and using an inappropriate publication to complete calculations.

The engineer admitted that their conduct was contrary to Principle 2 of the Code of Ethics. For all contraventions collectively, the engineer agreed to resign their membership and pay \$7,000 towards Engineers and Geoscientists BC's legal costs.¹⁹⁸

COMMENTARY: Registrants can violate Principle 2 of the Code of Ethics by using inappropriate instruments and techniques for a project. As in this case example, the engineer's use of inappropriate instruments and techniques indicated that they lacked the training and experience to undertake this project.

Registrants should not accept work on a project if they are unsure what instruments and techniques are appropriate. If Registrants are only unsure about one aspect of a project, they should employ a professional who can advise or complete that aspect instead.

CASE EXAMPLE: INCOMPETENT IN STANDARD INDUSTRY PRACTICES

DESCRIPTION: While working on a project to design an on-site sewerage system for a new residence in Richmond, BC, an engineer submitted plans, specifications, and supporting documents to the City of Richmond and to Vancouver Coastal Health Authority that were deficient and inconsistent with standard industry practices. The engineer undertook and accepted responsibility for the design without sufficient training and experience.

Due to their lack of competence, the engineer failed to undertake an adequate soil evaluation and provided written assurance to the health authority that their design was consistent with standard practice when the engineer knew or ought to have known this was not the case.

For all contraventions, the engineer agreed that their membership would be suspended for two months. The engineer was prohibited from designing sewerage systems and from acting as an "authorized person" under the Sewerage System Regulation, BC Reg. 326/2004 until they could prove that they had successfully completed further training in sewerage system design. The engineer was also required to pay \$7,000 towards Engineers and Geoscientists BC's legal costs.¹⁹⁹

COMMENTARY: This engineer made substandard submissions and misleading assurances that negatively impacted their career and could have caused a costly failure. The engineer's unqualified work could have caused serious harm to both their clients and the public.

¹⁹⁸ [APEGBC v. Carlsen](#) (28 May 2018).

¹⁹⁹ [APEGBC v. Levin](#) (17 August 2019).

C2 CASE EXAMPLES: FOLLOW THE LAW (PRINCIPLE 3)

This case example further illustrates Principle 3 of the Code of Ethics, as described in [Section 4.3.3.5 Legislated Obligation to Inform of Risks](#).

CASE EXAMPLE: FAILING TO DISCLOSE INFORMATION TO THE PUBLIC ABOUT A RISK OF HARM

DESCRIPTION: The failure of the Testalinden Dam is an example of a disaster that may have been avoided had the public been alerted to the risk of significant harm. On June 13, 2010, a mudslide occurred in Osoyoos, BC after a dam holding back a reservoir broke. The disaster destroyed several homes and caused millions of dollars in property damage.

Professional Engineers working for the Ministry of Forests had reviewed the dam several times and had repeatedly advised that it posed a danger to the public.²⁰⁰ However, the public was never notified of the danger posed by the dam, notwithstanding section 25 of the *Freedom of Information and Protection of Privacy Act (FIPPA)*.

COMMENTARY: If the Ministry had disclosed information about the dam, public response may have pressured the owner to make necessary improvements or the government to take action. At the very least, disclosure of the hazard posed by the dam would have given nearby property owners the opportunity to prepare for its failure. In her report on the disaster, then BC Privacy Commissioner Elizabeth Denham stated that there had been an urgent need to disclose information about the risk of significant harm to the environment and nearby property owners. The Ministry had an obligation to disclose information about the compromised state of the dam and failed to meet that obligation.

²⁰⁰ Elizabeth Denham, *Investigation Report F13-05: Public Body Disclosure of Information Under Section 25 of the Freedom of Information and Protection of Privacy Act* (Victoria: Office of the

C3 CASE EXAMPLE: MAINTAIN YOUR COMPETENCE (PRINCIPLE 5)

This case example further illustrates Principle 5 of the Code of Ethics, as described in [Section 4.5 Maintain Your Competence](#).

CASE EXAMPLE: UNAWARE OF INDUSTRY STANDARDS

DESCRIPTION: A geologist authored three technical reports related to mineral resource estimation that fell below the standard expected of a reasonably prudent professional geoscientist.

The geologist admitted that one of the three reports did not meet the requirements of a technical report as defined by National Instrument (NI) 43-101 and that the estimate in the report was not adequately modelled or constrained. The geologist also admitted that the two other reports they authored contained numerous deficiencies that were contrary to NI 43-101 and industry standards, and that an inappropriate method was used to calculate the resource estimate.²⁰¹

For this and other charges collectively, the geologist was reprimanded and prohibited from performing mineral resource or mineral reserve estimations as defined in NI43-101. The geologist also agreed to the completion of a course on mineral project reporting, to pay a fine of \$15,000, and to pay \$20,000 towards Engineers and Geoscientists BC's legal costs.

COMMENTARY: In accordance with Principle 5 of the Code of Ethics, Registrants must keep themselves informed in order to maintain their competence.

This geologist should have been aware of the requirements that NI 43-101 imposed on their technical reports, as well as the proper method for calculating the resource estimate.

Information and Privacy Commissioner for BC, 2013) at 12-13 [Denham].

²⁰¹ *APEGBC v. George* (3 December 2015).

C4 CASE EXAMPLES: CONFLICTS OF INTEREST (PRINCIPLE 8)

These case examples further illustrate Principle 8 of the Code of Ethics, as described in [Section 4.8.1 Understanding Conflicts of Interest](#).

CASE EXAMPLE: NO CONFLICT OF INTEREST

DESCRIPTION: In 2011, South Island Aggregates and Cobble Hill Holdings (the “Proponent”) retained Active Earth Engineering (“AEE”) to act as the Qualified Professional for an application to obtain a permit from the BC Ministry of Environment. The Proponent required the permit to operate a long-term storage facility for contaminated soil in Shawnigan Lake, BC (the “Project”). Engineers and Geoscientists BC received complaints alleging that Registrants employed by AEE had entered into a profit-sharing agreement with the Proponent for the operation of the Project, and therefore had an undisclosed conflict of interest.

The Engineers and Geoscientists BC Investigation Committee found that at an early stage in the permitting process, the Registrants had informed the Ministry of Environment that AEE might take an ownership interest in the project. However, the Ministry informed AEE that the Ministry did not have an issue with AEE still serving as the Qualified Professional. The Investigation Committee also found that although AEE and the Proponent had discussed a joint venture agreement, no such agreement was ever reached. The Investigation Committee found it significant that the AEE professionals were not acting as experts but rather were recognized as advocates for the project.

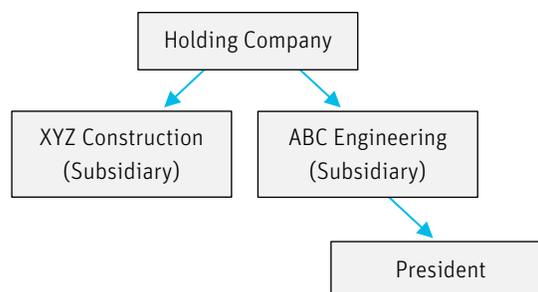
The Investigation Committee concluded that there were no reasonable or probable grounds to prove a contravention of the Code of Ethics particularly given they disclosed their possible financial interest in the project to the Delegate who advised that there was no Ministry policy against a Qualified Professional having an ownership interest. In this situation, discipline was unwarranted.²⁰²

COMMENTARY: In this case, a conflict of interest was not established. If the Registrants had not informed the Ministry about the proposed joint venture agreement, or if the Ministry had expressed concern, the Investigation Committee may have reached a different conclusion. Although discipline may not have been warranted in this specific situation, it illustrates the necessity to meticulously avoid conflicts of interest that can be reasonably compromise a Registrant’s judgment.

²⁰² The AEE Professionals consented to Engineers and Geoscientists releasing a public statement in relation to this matter, given the broad public attention the controversy received (see: [egbc.ca/getmedia/6609d03b-5246-4742-a396-](http://egbc.ca/getmedia/6609d03b-5246-4742-a396-54839509f744/Legal-Backgrounder.pdf.aspx)

CASE EXAMPLE (HYPOTHETICAL): HOLDING SHARES IN ANOTHER COMPANY ON THE SAME PROJECT

DESCRIPTION: The engineering firm, ABC Engineering, was a subsidiary of a parent holding company that also owned a construction company, XYZ Construction. ABC Engineering did design/bid/build work, and on occasion, XYZ Construction pursued construction work on the same projects. The president of ABC Engineering was offered shares in the parent holding company.



After considering this hypothetical example, the National Society of Professional Engineers Board of Ethical Review (the “NSPE Board”) determined that if someone in the president’s situation held shares in the parent holding company, they would be in a conflict of interest when ABC Engineering and XYZ Construction independently pursued work on the same project. To remedy such a conflict of interest, they should forego the shares or ABC Engineering should forego working on the same projects as XYZ Construction.²⁰³

COMMENTARY: By virtue of having shares in the holding company, the president’s welfare would be tied to XYZ Construction’s welfare. They would be ethically obligated to act as a faithful agent of their client in the design of the project, while at the same time being financially impacted by how XYZ Construction carried out the construction of the project. Therefore, unless the performance of ABC Engineering and XYZ Construction are appropriately linked through dependent contractual agreements, it is unethical for both companies to work on the same project if the president owns shares in the holding company.

[54839509f744/Legal-Backgrounder.pdf.aspx](http://egbc.ca/getmedia/6609d03b-5246-4742-a396-54839509f744/Legal-Backgrounder.pdf.aspx)). See also Andrew Nikforuk, “No Conflict on Shawnigan Lake Review as Government OKed It, Rules Professional Body”, *The Tyee* (August 4, 2017).

²⁰³ *Holding Company Case No. 02-10, supra* note 74.

C5 CASE EXAMPLES: STAND YOUR GROUND (PRINCIPLE 10)

These case examples further illustrate Principle 10 of the Code of Ethics, as described in [Section 4.10 Stand Your Ground](#).

CASE EXAMPLE: ALTERING A REPORT BECAUSE OF PRESSURE FROM A CLIENT

DESCRIPTION: In June 2012, the roof of a retail mall collapsed in Elliot Lake, Ontario, killing two people and injuring numerous others. The collapse was caused by the sudden failure of a connection between a steel beam and a steel column, which were part of a substructure below the roof-top parking lot. The failure was caused by the beams rusting away due to the continual leaking of water and chlorides (road salt) into the substructure since the building's construction in 1979.

The Commissioner in charge of an inquiry into the collapse wrote that the professionals who had done inspections of the mall's roof "occasionally pandered more to their client's sensitivities than to their professional obligation to expose the logical and scientific consequences of their observations".²⁰⁴

The inquiry specifically discussed an April 2012 inspection. This inspection was required for the mall owner to secure a bank loan. The engineer who conducted the inspection had their engineering licence suspended at the time they completed the April 2012 inspection, so the report arising from the inspection was signed and sealed by a supervising engineer. The April 2012 inspection of the mall's roof noted many symptoms of leaks and decay, including rusting steel beams, but concluded upon visual inspection that "the observed rusting at this time has not detrimentally changed the load carrying capabilities of the structure, and no visual signs of structural distress was observed".²⁰⁵

After the report had been signed and sealed by the supervising engineer, and without notifying the supervising engineer of the changes, the engineer who conducted the inspection amended their report to omit the conclusion that there were "ongoing" leakage issues at the client's assurance that the problems would be fixed.²⁰⁶

After the inquiry report was released, the engineer was subject to two charges of criminal negligence causing death and one charge of criminal negligence causing bodily harm. However, the Ontario Superior Court found that although the engineer's inspection was "sloppy" and "inadequate", the engineer in question was not solely responsible for what occurred at the mall.²⁰⁷ The Court cited mitigating factors, including the fact that other engineers had also inspected the mall and found it to be structurally safe, and that the inadequacy of the engineer's April 2012 inspection did not reach the criminal level.²⁰⁸

COMMENTARY: The engineer's assessment of the structural support of the mall should have been solely based on sound engineering principles and thorough inspection. Principle 10 of the Code of Ethics prohibits Registrants from altering their reports simply because their clients request changes.

Although the engineer was not found guilty in their criminal trial, the engineer did violate Principle 10 by allowing their client's assurances regarding the fixing of the leaks to alter the conclusions in the report.

²⁰⁴ Paul R. Bélanger for the Ontario Ministry of the Attorney General, *Report of the Elliot Lake Commission of Inquiry: Executive Summary* (2014) at 4 [*Elliot Lake Report*].

²⁰⁵ *Ibid.* at 21.

²⁰⁶ *Ibid.* at 25.

²⁰⁷ *R v. Wood*, 2017 ONSC 3239 at para 343 [*Wood*].

²⁰⁸ *Ibid.* at para 343.

CASE EXAMPLE: CHEATING AT THE REQUEST OF MANAGEMENT

DESCRIPTION: In 2006, Volkswagen engineers began designing a diesel engine to meet stricter nitrous oxide emissions standards in the United States. This diesel engine was central to Volkswagen’s efforts to sell diesel vehicles that could be marketed as “clean diesel.”²⁰⁹ Senior managers at Volkswagen soon realized their engineers could not design a marketable diesel engine that met the emissions standards. Instead, they decided to have engineers install software that allowed vehicles to cheat emissions standards tests.²¹⁰ When the software detected that vehicles were undergoing emissions testing, it would cause vehicles to perform in a mode that released allowable levels of nitrous oxide. However, when the software detected that vehicles were operating under normal driving conditions, vehicles performed in a different mode and released 40 times the allowable amount of nitrous oxide.²¹¹

The United States Environmental Protection Agency discovered the software in September 2015 and ordered Volkswagen to recall 482,000 cars in the United States. Volkswagen lost €15 billion in market capitalization, faced class action lawsuits in the United States and Canada, and were subject to criminal investigation by the United States Justice Department. Further, Switzerland banned the sale of Volkswagen diesel cars and Volkswagen recalled 8.5 million cars across Europe.²¹²

COMMENTARY: Volkswagen software engineers should not have succumbed to pressure from senior managers to create and install software to cheat emissions tests, knowing they it was illegal and of great harm to the environment.

C6 CASE EXAMPLES: DO UNTO OTHERS (PRINCIPLE 13)

These case examples further illustrate Principle 13 of the Code of Ethics, as described in [Section 4.13.2 Discrimination and Harassment](#) and [Section 4.13.3 Employer Resources](#).

The following example specifically relates to [Section 4.13.2.2 Harassment](#).

CASE EXAMPLE: MAKING DEMEANING AND SEXUAL COMMENTS

DESCRIPTION: A Disciplinary Panel found that an engineer, among other charges, had sent crude, demeaning, misogynistic, and profoundly disrespectful emails to female staff members at the Architectural Institute of British Columbia (AIBC). These emails referred to a female staff member at AIBC as “doll”, “girl”, and “my dear”, and contained lewd references to suggested sexual activities.

When Engineers and Geoscientists BC contacted this engineer about his emails, he accused Engineers and Geoscientists BC of colluding with AIBC. He also made further inappropriate remarks about his sexual objectives with female staff members at AIBC.

A Disciplinary Panel found that Engineers and Geoscientists BC had jurisdiction over the engineer’s communications with AIBC because the content of those emails undermined the integrity and reputation of the engineering profession. The Panel ordered, for all contraventions collectively, the immediate cancellation of the engineer’s membership and payment of \$46,455 towards Engineers and Geoscientists BC’s legal and related costs.²¹³

COMMENTARY: The engineer’s emails to AIBC staff members reflected a marked departure from the standard of conduct required of Registrants by Principle 13 of the Code of Ethics. Such demeaning, misogynistic, and disrespectful communications showed a complete lack of courtesy towards others. His response to Engineers and Geoscientists BC was also unacceptable.

²⁰⁹ Simon Rogerson, “Is professional practice at risk following the Volkswagen and Tesla revelations?: Software Engineering Under Scrutiny” (2017) 47:3 ACM SIGCAS Computers and Society 25 at 27 [Rogerson].

²¹⁰ *Ibid.* at 27.

²¹¹ *Ibid.* at 27.

²¹² Julia Kollwe, “Volkswagen emissions scandal – timeline”, The Guardian (10 December 2015).

²¹³ *APEGBC v. James W.E. Halarewicz – Determination of the Discipline Committee* (11 October 2018); *APEGBC v. James W.E. Halarewicz - Determination of the Discipline Committee on Penalty and Costs* (18 January 2019).

The following example specifically relates to [Section 4.13.3 Employer Resources](#).

CASE EXAMPLE: ABUSING EMPLOYER RESOURCES TO WORK FOR ANOTHER COMPANY

DESCRIPTION: An applicant for registration as a professional engineer with Engineers and Geoscientists BC had been working at Firm 1 for three years. The applicant was unhappy with the job and wanted to look for other work. They met another engineer who was starting a new company, Firm 2, and who wanted to eventually recruit the applicant to come work for them. The applicant was excited about this new job opportunity and agreed to join. The applicant continued to work at Firm 1 but decided to start doing what they could to help Firm 2 in order to impress their prospective employer. The applicant used their company’s cell phone, computer, and other resources to communicate and complete a tender on Firm 2’s behalf. The applicant attempted to recruit a fellow employee to join Firm 2 and encouraged a potential client of Firm 1 to deal with Firm 2 instead of Firm 1 on the same project. They also attempted to download extensive electronic file information from Firm 1 for future use at their new firm. Firm 1 discovered that the applicant had been using their resources to conduct business for another company and for the applicant’s own personal gain. Firm 1 filed a complaint with Engineers and Geoscientists BC. Because the applicant was still an engineer-in-training (EIT), Engineers and Geoscientists BC held a Registration Hearing [Credentials Hearing] to determine if the applicant was “of good character and repute”—a requirement for registration as a professional engineer. The Registrar decided that the applicant did not meet this test of good character. As a result, the applicant’s application was denied, and they were banned from submitting another application for 12 months. Upon reapplication, they would need to provide substantial evidence of good character.²¹⁴

COMMENTARY: This applicant served their self-interest at the expense of Firm 1 by using his employer’s resources for personal gain outside the scope of their employment. The applicant also placed themselves in a conflict of interest by continuing to work for Firm 1 while engaging in work for Firm 2. It is unethical for Registrants to perform work for a different company while working on company time and using company resources. To avoid creating a conflict of interest, the applicant should have either declined to take the new job or resigned from Firm 1 prior to engaging with Firm 2.

²¹⁴ *APEGBC v. Applicant A* (18 January 2017).

