

Public Guideline on the code of ethics

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Notice

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About this Engineers Canada paper

This national Engineers Canada paper was prepared by the Canadian Engineering Qualifications Board (CEQB) and provides guidance to regulators in consultation with them. Readers are encouraged to consult their regulators' related engineering acts, regulations, and bylaws in conjunction with this Engineers Canada paper.

About Engineers Canada

Engineers Canada is the national organization of the provincial and territorial associations that regulate the practice of engineering in Canada and license the country's 295,000 members of the engineering profession.

About the Canadian Engineering Qualifications Board

CEQB is a committee of the Engineers Canada Board and is a volunteer-based organization that provides national leadership and recommendations to regulators on the practice of engineering in Canada. CEQB develops guidelines and Engineers Canada papers for regulators and the public that enable the assessment of engineering qualifications, facilitate the mobility of engineers, and foster excellence in engineering practice and regulation.

About Equity, Diversity, and Inclusion

By its nature, engineering is a collaborative profession. Engineers collaborate with individuals from diverse backgrounds to fulfil their duties, tasks, and professional responsibilities. Although we collectively hold the responsibility of culture change, engineers are not expected to tackle these issues independently. Engineers can, and are encouraged to, seek out the expertise of Equity, Diversity, and Inclusion (EDI) professionals, as well as individuals who have expertise in culture change and justice.

1 Fundamental principles

In what follows, the fundamental principles of ethics are applied in relation to the Engineers Canada Code of Ethics, and then interpretative comments and illustrative examples are presented.

Ethics is generally understood as the discipline or field of study dealing with moral duty or obligation. This typically gives rise to a set of governing principles or values which in turn are used to judge the appropriateness of particular conduct or behaviour. These principles are usually presented either as broad guiding principles of an idealistic or inspirational nature or, alternatively, as a detailed and specific set of rules couched in legalistic or imperative terms to make them more enforceable. Professions that have been given the right and responsibility of self-regulation, including the engineering profession, have tended to opt for the first alternative, espousing sets of underlying principles as codes of professional ethics which form the basis and framework for responsible professional practice. Arising from this context, professional codes of ethics have sometimes been incorrectly interpreted as a set of "rules" of conduct intended for passive observance. A more appropriate use by practicing professionals is to interpret the essence of the underlying principles within their daily decision-making situations in a dynamic manner, responsive to the needs of the situation. As a consequence, a code of professional ethics is more than a minimum standard of conduct; rather, it is a set of principles which should guide engineers in their daily work.

The Code of Ethics presented below expresses the expectations from registrants as they discharge their professional responsibilities. The Code is based on broad principles of integrity, truth, honesty, and trustworthiness, respect for human life and welfare, fairness, openness, competence, and accountability. Some of these broader ethical principles or issues deemed more universally applicable are not specifically stated in the Code, though they are understood to apply as well; only those tenets deemed particularly applicable to the practice of engineering are listed. Nevertheless, ethical principles or issues not commonly considered to be part of professional ethics may sometimes have implications on the registrant's professional role.

In this code, “registrant” means an individual registered with a regulator, and could be an engineer, engineer-in-training, member-in-training, engineering intern, or licensee.

2 The code of ethics

Registrants shall conduct themselves with integrity, in an honourable and ethical manner. Registrants shall uphold the values of truth, honesty and trustworthiness and safeguard human life and welfare and the environment. In keeping with these basic tenets, registrants shall:

1. Hold paramount the safety, health and welfare of the public and the protection of the environment and promote health and safety within the workplace.
2. Offer services, advise on or undertake engineering assignments only in areas of their competence and practise in a careful and diligent manner and in compliance with applicable legislation.
3. Act as faithful agents of their clients or employers, maintain confidentiality and avoid conflicts of interest, but, where such conflict arises, fully disclose the circumstances without delay to the employer or client.
4. Keep themselves informed in order to maintain their competence and strive to advance the body of knowledge within which they practise.
5. Conduct themselves with integrity, equity, 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 criticism.
6. Present clearly to employers and clients the possible consequences if engineering decisions or judgements are overruled or disregarded.
7. Report to their regulator other appropriate agencies any illegal or unethical engineering decisions or practices by registrants or others.
8. Be aware of, and ensure that clients and employers are made aware of, societal and environmental consequences of actions or projects and endeavour to interpret engineering issues to the public in an objective and truthful manner.
9. Treat equitably and promote the equitable and dignified treatment of people in accordance with human rights legislation.
10. Uphold and enhance the honour and dignity of the profession.

3 Interpretation of the code of ethics

The interpretive articles which follow expand on and discuss some of the more difficult and interrelated components of the Code. The objective is to broaden the interpretation, rather than narrow its focus. The ethics of the profession is an integrated whole and cannot be reduced to fixed "rules". Therefore, the more common issues and questions arising from the Code are discussed in a general framework, drawing on portions of the Code to demonstrate their interrelationship and to expand on the basic intent of the Code.

Registrants have a duty to practice in a careful and diligent manner and accept responsibility and accountability for their actions. This duty is not limited to design, supervision or management, it applies to all areas of practice.

For example, it includes construction supervision and management, preparation of shop drawings, engineering reports, feasibility studies, environmental impact assessments, engineering developmental work, etc.

The signing and sealing of engineering documents indicates the taking of responsibility for the work. This practice is required for all types of engineering endeavour, regardless of where or for whom the work is done, including, privately and publicly owned firms, crown corporations, and government agencies or departments. There are no exemptions; signing and sealing documents is appropriate whenever engineering principles have been used and public welfare may be at risk.

Taking responsibility for engineering activity includes being accountable for one's own work and, in the case of a senior engineer, accepting responsibility for the work of an engineering team. The latter implies responsible supervision where the engineer is actually in a position to review, modify, and direct the entirety of the engineering work. This concept requires setting reasonable limits on the extent of activities, and the number of registrants and others, whose work can be supervised by the responsible engineer. The practice of a "symbolic" form of supervision is contrary to the intent of "taking professional responsibility". An example of "symbolic" responsibility or supervision is the situation where an engineer, say with the title of "chief engineer", takes full responsibility for all engineering on behalf of a large corporation, utility or government agency or department, even though the engineer may not be aware of many of the engineering activities or decisions being made daily throughout the organization. The essence of this approach is that the organization is taking the responsibility by default, whether engineering supervision and direction is applied or not.

3.1 Hold paramount the safety, health and welfare of the public, environment and workplace

Registrants shall hold paramount the safety, health and welfare of the public and the protection of the environment. This obligation to the safety, health and welfare of the general public, which includes the work environment, is often dependent upon engineering judgements, risk assessments, decisions and practices incorporated into structures, machines, products, processes, and devices. Therefore, registrants must ensure that works they are involved with conform to accepted engineering practice, standards, and applicable codes, and would be considered "safe" based on peer adjudication. This responsibility includes all situations which an engineer encounters, and includes an obligation to advise the appropriate authority if there is reason to believe that any engineering activity or its products, processes, etc. are not in compliance in a significant manner.

The meaning of "paramount" in this basic tenet is that all other requirements of the Code are subordinate if protection of public safety, the environment or other substantive public interests are involved.

3.2 Practice in areas of competence only and in legal compliance

Registrants shall offer services, advise on, or undertake engineering assignments only in areas of their competence by virtue of their training and experience. This includes exercising care and communicating clearly in accepting or interpreting assignments, and in setting expected outcomes. It also includes the responsibility to obtain the services of a specialist or expert if required or, if the knowledge is unknown, to proceed only with full disclosure of the experimental nature of the activity to all parties involved.

Hence, this requirement is more than simply duty to a standard of care; it also involves honesty with one's client or employer and one's self. An integral part of competent practice is an awareness of, and compliance with, applicable legislation.

3.3 Act as faithful agents of their clients or employers

Registrants shall act as faithful agents or trustees of their clients and employers with objectivity, fairness, and justice to all parties. With respect to the handling of confidential or proprietary information, the concept of "ownership" of the information and protecting that party's rights is appropriate. Registrants shall not reveal facts, data, or information obtained in a professional capacity without prior consent of their owner. The only exception to respecting confidentiality and maintaining a trustee's position is in instances where the public interest or the environment is at risk as discussed in the preceding section; but even in these instances, the registrant should endeavour to have the client and/or employer appropriately redress the situation, or at least should make every effort to contact them prior to informing the appropriate authority.

Registrants shall avoid conflict of interest situations with employers and clients but, should such conflict arise, it is the registrant's responsibility to fully disclose, without delay, the nature of the conflict to the party or parties with whom the conflict exists. In those circumstances where full disclosure is insufficient, or seen to be insufficient, to protect all parties' interests, the registrant shall withdraw totally from the issue or use extraordinary means, involving independent parties if possible, to monitor the situation. For example, it is inappropriate to act as agent for both the provider and recipient of professional services. If a client's and employer's interests are at odds, the registrant shall attempt to deal fairly with both. If the conflict of interest is between the intent of a corporate employer and a regulatory standard, the registrant must attempt to reconcile the difference, and if that is unsuccessful, it may become necessary to inform the regulator.

Being a faithful agent or trustee includes the obligation of engaging, or advising to engage, experts or specialists when such services are deemed to be in the client's or employer's best interests. It also means being accurate, objective and truthful in making public statements on behalf of the client or employer when required to do so, while respecting the client's and employer's rights of confidentiality and proprietary information.

Being a faithful agent includes not using a previous employer's or client's specific privileged or proprietary information and trade practices or process information, without the owner's consent. However, general technical knowledge, experience and expertise gained by the registrant through involvement with the previous work may be freely used in subsequent undertakings, without consent.

3.4 Maintain competence on a continual basis

Registrants have the responsibility to remain abreast of developments and knowledge in their area of expertise, that is, to maintain their own competence. Should there be a technologically driven or individually motivated shift in the area of technical activity, it is the registrant's duty to attain and maintain competence in all areas of involvement. In effect, it requires a personal commitment to ongoing professional development and continuing education.

In addition to maintaining their own competence, registrants have an obligation to strive to contribute to the advancement of the body of knowledge within which they practice, and to the profession in general. Additionally, within the framework of the practice of their profession, they are expected to participate in providing opportunities to further the professional development of their subordinates and colleagues.

3.5 Act with integrity equity, fairness, courtesy and good faith

When called upon to review another engineer's work, there is an obligation to inform (or make every effort to inform) the other engineer, whether he or she is still actively involved or not. In this situation, and in any circumstance, the engineer shall give proper recognition and credit where credit is due and accept, as well as give, honest and fair criticism on professional matters, all the while maintaining dignity and respect for everyone involved.

This competence requirement of the Code extends to include an obligation to the public, the profession and one's peers, that opinions on engineering issues be expressed honestly and only in areas of one's competence. It applies equally to reporting or advising on professional matters and to issuing public statements. This requires honesty with one's self to present issues fairly, accurately, and with appropriate disclaimers, and to avoid personal, political, and other non-technical biases. The latter is particularly important for public statements or when involved in a non-technical forum.

3.6 Present clearly to employers and clients the possible consequences of engineering decisions

Registrants have a duty to advise their employer and, if necessary, their clients and even their regulator, in that order, in situations when the overruling of an engineering decision may result in breaching their duty to safeguard the public. The initial action is to discuss the problem with the supervisor or employer. If the supervisor or employer does not adequately respond to the registrant's concern, then, in a consultancy situation the client must be advised; in a manufacturing process plant or government agency, the most senior officer should be informed. If these attempts fail to rectify the situation, the registrant must present the concerns to the regulator, even at the risk of loss of employment.

3.7 Report as appropriate any illegal or unethical engineering decisions or practices

Registrants shall not accept nor offer covert payment or other considerations for the purpose of securing, or as remuneration for, engineering assignments. Registrants should prevent their personal or political involvement from influencing or compromising their professional role or responsibility.

Consistent with the Code, and having attempted to redress any situation within their organization, registrants are obliged to report to their regulator or other appropriate agency any illegal or unethical engineering decisions or practices by registrants or others. Care must be taken not to enter into legal arrangements which compromise this obligation.

In the same order as mentioned above, the registrant must report unethical engineering activity undertaken by other registrants or by non-registrants. This extends to, for example, situations in which senior officials of a firm make "executive" decisions which clearly and substantively alter the engineering aspects of the work, or protection of the public welfare or the environment arising from the work.

3.8 Inform clients and employers of societal and environmental consequences

Because of the rapid advancements in technology and the increasing ability of engineering infrastructure to have an impact on the environment, registrants have an obligation to be mindful of the effect that their decisions will have on the environment and the well-being of society, and to report any concerns of this nature in the same manner as previously mentioned. Furthermore, with the rapid advance of technology and the possible societal impacts on large populations of people, registrants must endeavour to foster the public's understanding of technical issues more than ever before.

3.9 Treat equitably and promote the equitable and dignified treatment of all people

Registrants should treat all people equitably and with dignity. Registrants must also respect evolving human rights legislation and the prohibited grounds of discrimination such as race, national or ethnic origin, colour, religion, age, sex, sexual orientation, gender identification, marital status, family status, disability and conviction for an offence for which a pardon has been granted or in respect of which a record suspension has been ordered or any other grounds.

3.10 Uphold and enhance the honour and dignity of the profession

Honesty, integrity, competence, devotion to service, and dedication to generally enhancing the quality of life are cornerstones of professional responsibility. Within this framework, registrants shall be objective and truthful and include all relevant and pertinent information in professional reports, statements, and testimony. They shall accurately and objectively represent their clients, employers, associates, and themselves consistent with their academic, experience, and professional qualifications. This tenet is more than "not misrepresenting" as it also implies disclosure of all relevant information and issues, especially when serving in an advisory capacity or as an expert witness. Similarly, fairness, honesty and accuracy in advertising are expected. Registrants are expected to respect the law in their personal conduct and must not engage in acts that compromise their professional reputation or bring discredit to their profession.