

EVERYDAY ETHICAL PRINCIPLES HELP PROTECT THE PUBLIC AND PRACTITIONERS

By José Vera, P.Eng., MEPP

The *Practice Guideline on the Code of Ethics* from Engineers Canada notes that “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.” Even though we may see high-profile engineering ethics cases in the news, such as those involving Boeing and Volkswagen, the typical ethical questions faced by most engineers daily are far more practical, according to North Carolina State University ethics and technology professor Joseph R. Herckert. Furthermore, engineering law expert Jeffrey H. Matsuura asserts that while the central objective of an engineering Code of Ethics is to safeguard the public, it also provides legal protection to practitioners. Let’s review some key ethical principles that practitioners should consider every day in order to reduce risks to the public—which is the main objective of the Code of Ethics—and in so doing also help them reduce their own legal risks.

TRANSPARENCY AND DISCLOSURE

Practitioners have an ethical and professional obligation to disclose to their clients any potential conflicts of interest that may be perceived as prejudicial to their engineering judgment. Similarly, employee engineers considering part-time engineering entrepreneurship must disclose in writing their employment status to their prospective clients and satisfy their current employer that their work will not present a conflict to them. Furthermore, practitioners who review the work of other fellow practitioners for the same employer have an ethical obligation to ensure their peers are notified that their work is being reviewed. Finally, the PEO practice guideline *Structural Condition Assessments of Existing Buildings and Designated Structures* recommends that practitioners disclose relevant work experience, among other information, to their prospective clients.

One purpose of engineers’ obligation to disclose information is to be transparent about their intention. Although practitioners may have perfectly good intentions when engaging in such activities as part-time entrepreneurship or peer reviews, transparency with their employer, client and colleagues helps ensure that potential conflicts are managed appropriately. Furthermore, disclosing relevant work experience to prospective clients ensures that the competency of practitioners is being assessed by others, such as clients, and not just by practitioners themselves.

It is worth noting that actual and serious conflicts of interest result not only in allegations of professional misconduct but also, in some cases, termination of employment (see *Cavanagh v. Canada Revenue Agency*, 2015 PSLREB 7 (CanLII), canlii.ca/t/ggbs1). Transparency and disclosure help minimize these risks. Although the Code of Ethics has specific requirements for disclosure, it is fair to conclude that a

reasonable and prudent practitioner consistently aims to be transparent in their day-to-day work life, since transparency helps safeguard the public interest and helps practitioners avoid unnecessary liability.

INTEGRITY AND HONESTY

As per the Code of Ethics, practitioners must not publicly express opinions on professional engineering matters that are not founded on adequate knowledge and honest conviction. Furthermore, practitioners have an ethical obligation to maintain the honour and integrity of the profession and—without fear or favour—expose before the proper tribunals unprofessional, dishonest or unethical conduct by any other practitioner.

These ethical obligations help protect the public by ensuring that professional engineering advice and opinions included in reports and studies are presented in an honest manner, noting that the public places reasonable reliance on engineering recommendations. Conversely, an engineering report containing dishonest, false or misleading information likely presents a risk not only to clients but to the public, who may be affected by the consequences of such a report. For example, a situation that results in a clear risk to the public can involve a practitioner who conducts an environmental property audit and informs the Ontario environment ministry that no contaminants were detected in all samples analyzed but an inspector subsequently finds out during a lab visit that the practitioner withheld results showing polychlorinated biphenyls (PCBs) (see *Decisions and Reasons, Engineering Dimensions*, November/December 2009, p. 33).

It is critical to note that these obligations relating to honest behaviour are not exclusively ethical, since several laws make it an offence to provide false information to regulatory bodies and, further, these laws apply to engineering documents, such as reports (see “Honesty, integrity and engineering reports,” *Engineering Dimensions*, September/October 2015, p. 36). Consequently, when practitioners act with devotion to high ideals of professional integrity, they protect themselves from unwarranted legal liability while helping protect the public.

KNOWLEDGE AND COMPETENCE

Practitioners have an ethical duty to always act with knowledge of developments in the area of professional engineering relevant to any services undertaken, and with competence in the performance of any professional engineering services undertaken. From this duty it logically follows that practitioners must only undertake work in areas in which they are knowledgeable and where they can perform competently.

Well-known engineer and writer Samuel Florman points out that several studies demonstrate that engineering disasters are usually not caused by malicious intent but rather are the result of negligence. Thus, Florman concludes that competence is a key ethical principle, more important than professional courtesy, since incompetent engineering can lead to catastrophe with loss of life and injuries. Current events teach us that practitioners can even face allegations of criminal negligence in the most extreme cases (see *R. v Wood*, 2017 ONSC 3239 (CanLII), canlii.ca/t/h422f). But even in day-to-day situations, incompetence can have serious consequences to the public and to practitioners. For example, a roof collapse of an empty arena due to an engineering design error may cost no lives, and that is good news, but it can result in allegations of professional misconduct and liability to practitioners. Undertaking work only that the practitioner can perform competently and with knowledge protects the public—and this is the main objective of the Code

of Ethics. And by protecting the public, the practitioner avoids legal risks for both themselves and their employer.

ETHICAL BEHAVIOUR AND NON-ENGINEERS

Policymakers have long been aware that solely having ethical practitioners is not enough to protect the public. That is why there are laws that hold organizations and non-engineers responsible for environmental contamination, worker safety and even public safety. Furthermore, insurance requirements provide a level of protection to the public. Government inspections also play a key role in public protection. Although ethical behaviour of practitioners is nonetheless very important, practitioners must be aware that they do not operate in a vacuum, and they often need to collaborate with other entities, such as clients, employers, regulatory bodies, municipalities, ministries and standards organizations to help protect the public.

PEO's practice advisory team is available by email at practice-standards@peo.on.ca for practitioners looking for general information on their professional obligations. However, practitioners looking for assistance on resolving legal problems occurring in specific, concrete situations should always contact their lawyer. [e](#)

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