THE PRACTITIONER'S DUTY TO EXPLAIN CONSEQUENCES

By Jennifer Whang, P.Eng., PMP

Similar to doctors with patients, professional engineers have a duty to explain risks and potential consequences to their employer or clients, especially when their professional advice is not being heeded.

When we go to our local clinic for an annual flu shot, the doctor explains the risks and asks us questions, such as if we are allergic to eggs, because the flu shot is traditionally manufactured using egg-based technology. Physicians have a duty to explain to their patients any potential side effects associated with a drug or treatment, as well as the potential consequences of not taking a prescribed drug or treatment. Similarly, professional engineers have a duty to explain risks and potential consequences to their employer or clients. Refer to section 72(2)(f) of O.Reg. 941 under the *Professional Engineers Act*:

> (2) For the purposes of the act and this regulation, "professional misconduct" means,…
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> > (f) failure of a practitioner to present clearly to the practitioner's employer the consequences to be expected from a deviation proposed in work, if the professional engineering judgment of the practitioner is overruled by non-technical authority in cases where the practitioner is responsible for the technical adequacy of professional engineering work…

Professional engineers may face a challenging situation when their professional engineering judgment on projects affecting public safety is overruled by a non-technical authority, such as their client.

Consider this example: Emma is a professional engineer who works for XYZ engineering. She is currently working on a swimming pool enclosure design for their client, ABC Hotels. Emma prepares a design that optimizes cost and quality and promotes safety. Because of the corrosive environment of the swimming pool, Emma has prepared a material list with galvanized steel structural elements, instead of plain steel elements, in order to minimize the risk of potential corrosion leading to structural failure. In addition, using galvanized steel materials complies with the local municipal bylaws on swimming pool enclosures. However, client ABC insists on using plain steel elements to save costs. Consequently, Emma must explain to the client the consequences of using plain steel elements, since people who will use the swimming pool in the future could be exposed to a potential collapse of the enclosure. Furthermore, Emma must explain to ABC that not following municipal bylaws could potentially place ABC in a problematic situation with the municipality.

Emma decides to take a diplomatic approach, like a physician, by simply explaining potential consequences to ABC with no judgment. She does not threaten to quit or to speak with the municipality. However, Emma is aware that, in an extreme case, she may have no other choice but to speak with the municipality. Fortunately, in this situation, thanks to Emma's clear explanation, ABC changes their mind and decides to use galvanized steel elements for the swimming pool enclosure. Had ABC refused to use galvanized steel elements, Emma would have had to discuss this situation with her employer's management team at XYZ, and they would have likely needed to contact their legal counsel and professional liability insurance provider for advice on how to manage this potentially unsafe situation.

Because the duty to explain consequences falls under professional misconduct, engineers who do not follow this duty might face allegations of professional misconduct. To avoid any potential allegations, it is wise for engineers to put their advice in writing and follow up with clients and employers to ensure their advice has been received and is being considered. Final decisions in these matters are often made by the client or employer, not the engineers. Consequently, engineers do not have an obligation to change the minds of their clients and employers; rather, they have only a duty to explain the consequences when their advice is overruled by a non-technical authority.

PRACTICE GUIDELINE REVISION

Recently, PEO's Professional Standards Committee revised the *Professional Engineering Practice* guideline to fix some incorrect terminology. For example, the use of the term "whistleblowing" was removed from the guideline because there is no whistleblowing duty. As explained above and in the revised guideline, professional engineers have a duty to clearly explain the consequences to their employer when their professional judgment is overruled by a non-technical authority. Furthermore, the guideline also explains engineers' duty to report involving safety and the common law duty to warn in some extreme unsafe circumstances—but these are completely different concepts from whistleblowing. For more information on the duty to report and the duty to warn, the updated *Professional Engineering Practice* guideline can be found at peo.on.ca/sites/default/files/2020-12/PEPGuideline_Nov2020.pdf.

PEO's practice advisory team is available by email at practice-standards@peo.on.ca and is glad to hear from practitioners looking for more information on PEO's practice guidelines. e

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