



Professional Engineers
Ontario

Assuming Responsibility and Supervising Engineering Work Guideline

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Notice: The Professional Standards Committee has a policy of reviewing guidelines every five years to determine if the guideline is still viable and adequate. However, practice bulletins may be issued from time to time to clarify statements made herein or to add information useful to those engineers engaged in this area of practice. Users of this guideline who have questions, comments or suggestions for future amendments and revisions are invited to submit these to PEO using the standard form included in the following online document: http://peo.on.ca/index.php/ci_id/23427/la_id/1.htm.

1.

PURPOSE OF PEO GUIDELINES

Professional Engineers Ontario (PEO) produces guidelines to educate licensees and the public on best practices.

For more information on PEO's guideline and development process, including PEO's standard form for proposing revisions to guidelines, please refer to the Guideline Development and Maintenance Processes document, available at: www.peo.on.ca/index.php/ci_id/23427/la_id/1.htm.

To view other PEO guidelines, please visit the Practice Advice Resources and Guidelines section of the PEO website: www.peo.on.ca/index.php/ci_id/30386/la_id/1.htm.

ABSTRACT

The purpose of this guideline is to define best practices for engineers who assume responsibility for professional engineering work of unlicensed persons, and for engineers who supervise engineering services in consideration of the *Professional Engineers Act*.

2.

PREFACE

In November 2016, PEO Council approved the development of a guideline for engineers assuming responsibility for engineering work and the supervision of such work. Staff was instructed to propose best practices applicable to this practice guideline.

A completed draft of this document was submitted by staff to the Professional Standards Committee (PSC) for approval on November 14, 2017.

Following consultations with engineers, co-regulators and other stakeholders, the final draft was approved by Council at its meeting on February 2, 2018.

3.

PURPOSE AND SCOPE OF THIS GUIDELINE

The purpose of this guideline is to provide best practices for engineers who:

- Assume responsibility for work within the practice of professional engineering performed by unlicensed persons; and
- Personally supervise and direct the provision of services within the practice of professional engineering.

REQUIREMENTS

4.1 General Requirements

In most situations, the *Professional Engineers Act* requires that individuals practising professional engineering hold a licence. In addition, the act requires that business entities (sole proprietorship, partnership or corporation) hold a certificate of authorization (C of A) to offer to the public, or engage in the business of providing to the public, services that are within the practice of professional engineering. The practice guideline *Use of the Professional Engineer's Seal* states: "The engineer, by affixing the seal, assumes responsibility and is answerable for the quality of the work presented therein." Refer to this guideline for more information on the use of the seal: http://www.peo.on.ca/index.php/ci_id/22148/la_id/1.htm.

4.2 Professional Responsibility of Supervising Engineers

As per section 17(1) of the act, it is a condition of every C of A that its holder, meaning the business entity, shall provide services that are within the practice of professional engineering only under the personal supervision and direction of a holder of a licence, temporary licence or limited licence. The professional responsibility of supervising engineers working for a C of A firm is captured under section 17(2):

- 17(2) A holder of a licence, temporary licence or limited licence who personally supervises and directs the providing of services within the practice of professional engineering by a holder of a certificate of authorization or who assumes responsibility for and supervises the practice of professional engineering related to the providing of services by a holder of a certificate of authorization is subject to the same standards of professional conduct and competence in respect of the services and the related practice of professional engineering as if the services were provided or the practice of professional engineering was engaged in by the holder of a licence, temporary licence or limited licence.

From the above, it follows that working for a firm that holds C of A does not allow one to evade professional responsibilities, since these remain firmly attached to the engineer.

4.3 Assuming Professional Responsibility for Professional Engineering Work

Exceptions

Section 12(3)(b) of the act includes the following exception to when licences and certificates are required in:

- (3) Subsections (1) and (2) do not apply to prevent a person, ...
 (b) from doing an act that is within the practice of professional engineering where a professional engineer or limited licence holder assumes responsibility for the services within the practice of professional engineering to which the act is related.

4 Assuming Responsibility and Supervising Engineering Work

Below are the subsections (1) and (2) referenced above:

When licences or certificates required

Licensing requirement

12 (1) No person shall engage in the practice of professional engineering or hold himself, herself or itself out as engaging in the practice of professional engineering unless the person is the holder of a licence, a temporary licence, a provisional licence or a limited licence.

Certificate of authorization

(2) No person shall offer to the public or engage in the business of providing to the public services that are within the practice of professional engineering except under and in accordance with a certificate of authorization.

In situations where an engineer assumes responsibility for an unlicensed person's engineering work, the engineer is subject to the same standards of professional conduct and competence as if the engineer completed the services personally. Although section 17(2) does not specifically apply to the practice of professional engineering outside of a C of A, it does describe a standard of professional conduct that a reasonable engineer should follow under all situations when assuming responsibility for work carried out under the engineer's personal supervision and direction.

Therefore, it follows that a reasonably prudent engineer assuming responsibility for work done by unlicensed persons should provide personal supervision and direction.

4.4 Reasonable Supervision and Project Supervision Plan

The nature of the engineering task dictates the standard of care for personal supervision. This concept is outlined in the book, *Engineering Law*:

"The engineer must give reasonable supervision to the work. He (or she) is not required to do everything in the way of watching the direction of works under his (or her) charge, but he (or she) is required to give such care and attention to the work while it is in progress as the nature and difficulties of the particular work reasonably demand." (Laidlaw, R.E., Young, C.R. and Dick, A.R. *Engineering Law*. Toronto: University of Toronto Press, 1981).

Furthermore, the amount of supervision will depend upon the number and competence of the subordinates. These concepts should guide the supervising engineer in developing a written project supervision plan that is reasonable for the nature of the engineering work before commencing an engineering project.

4.5 Practice Guidelines and Performance Standards

The act equates personal supervision and direction to assuming responsibility for professional engineering work. Therefore all PEO practice guidelines and performance standards are applicable to these situations. For more information on PEO practice guidelines

and performance standards, please visit: http://www.peo.on.ca/index.php?ci_id=30386&la_id=1.

5.

BEST PRACTICES FOR PERSONAL SUPERVISION AND DIRECTION

5.1 Active Involvement of Supervising Engineer

The supervising engineer should have knowledge of all stages of the project for which they are responsible since personal supervision requires the active involvement of the supervising engineer. Active involvement may be demonstrated through knowledge of the project, development of the project, input on drafts, review of particular elements at different stages, and evidence of regular consultation throughout the project.

Indicators of the supervising engineer's active involvement may include:

- The existence of a project supervision plan developed by the supervising engineer before commencing the project;
- The physical presence of both the supervising engineer and the subordinate at the same workplace (where this is not possible, regular and ongoing documented communication between the two is necessary);
- Periodic documented reviews of the work and/or consultation of the supervising engineer throughout the project, as opposed to only at the final stage; and
- Clear documentation of the supervisory activities of the engineer.

5.2 Clear Decision-Making Process

The supervising engineer should clearly explain the project supervision plan to all of his or her subordinates before commencing a project or a working relationship with those subordinates. The project supervision plan should provide a framework that clearly explains the engineering decision-making process in the project.

Supervising engineers are required to assist their subordinates. The subordinates, therefore, should not make independent engineering decisions without the consultation of, and approval from, the supervising engineer. Instead, they should be working to carry out or implement the engineering decisions made by their supervising engineer.

Responsibility for engineering decisions does not require that the supervising engineer actively makes each and every decision relevant to a project. Codes and standards of practice that are accepted by the supervising engineer can guide much of the detailed work. Accepted codes and standards should be explicitly documented in the project supervision plan and communicated to subordinates on a project-by-project basis. Furthermore, the supervising engineer must have considered the relevant issues, overseen the subordinate who carried out the work, provided

directions where applicable, and reviewed each engineering decision and the reasons for making it.

Indicators of a clear decision-making process include:

- The supervising engineer has the authority to approve engineering decisions;
- The regular availability of the supervising engineer to answer questions regarding engineering decisions made during work on the project; and/or
- The supervising engineer's awareness of relevant design criteria, methods of analysis, selection of materials and systems, field conditions, design constraints, economics of alternate solutions, and environmental considerations.

5.3 Supervising Multidisciplinary Projects

In multidisciplinary projects, coordinating engineers may be assigned to verify if the work of various disciplines has been reasonably coordinated. The coordinating engineer may rely on the input of other professionals, especially when the work includes areas outside of the coordinating engineer's competence. In such a scenario, multiple supervising engineers would be required as a multidisciplinary engineering project requires a supervising engineer for each discipline.

The coordinating engineer may be responsible for verifying that the end result was reasonably coordinated, but the identity of the other supervising engineers (or other professionals, e.g. geoscientists, architects, etc.) should be noted. The decision as to who will take responsibility for each discipline and direct the work in each discipline should be made and documented in the project supervision plan prior to work starting. A record should be kept of each professional member's contribution and responsibility.

5.4 Assuming Responsibility for Work Prepared out of Province

Engineers should be cautious about assuming responsibility for work predominantly done by others. Assuming responsibility for work prepared out of province should apply to limited situations only because, in most cases, out of province engineers can obtain their own Ontario licences and out of province engineering firms can obtain an Ontario C of A.

However, there may be situations where engineers are required to assume responsibility for work that has been prepared by others outside of the province. These situations could place the Ontario engineer in a predicament, unless the engineer has clear authority and sufficient available information to re-perform substantial portions of the engineering work, make any needed revisions, communicate with the original designers, and potentially completely redesign a project, if required. In these situations, there would have to be a clear retainer agreement delineating the respective duties between all parties involved and the scope of work involved.

5.5 Mentoring

Engineers often mentor less experienced engineers or unlicensed persons. Mentoring in this sense involves providing training,

advice, comments, coaching about a specific field or a specific problem, or providing guidance on avenues of learning to develop knowledge in the current field of work. Mentoring is a different activity from supervising since no directing is involved. Mentoring in itself does not mean the mentoring engineer assumes responsibility for engineering decisions, as the person being mentored should still be receiving direction from a supervising engineer.

6.

FREQUENTLY ASKED QUESTIONS

How many subordinates can one engineer supervise?

As indicated in section 4.4 Reasonable Supervision and Project Supervision Plan, the nature of the engineering task determines the standard of care for personal supervision. Supervising engineers must rely on their professional judgement to ensure they are able to meet the standard of care for personal supervision when determining how many persons to supervise. For complicated tasks, the number of subordinates supervised by one engineer may have to be low to ensure work can be completed appropriately.

What is the standard of care for supervising engineering services?

While each situation is different, engineers should be aware that under most circumstances the standard of care expected from an engineer responsible for supervising an act of professional engineering performed by others is the same as if the engineer performed the act him or herself.

What extent of familiarity with the content of work is required when effectively assuming responsibility and supervising engineering services?

Engineers assuming responsibility and supervising are subject to all the requirements under section 72 of Ontario Regulation 941 (professional misconduct). For instance, practitioners can only undertake work that they are competent to perform by virtue of their training and experience. Further, section 77 of Regulation 941 states that, “it is the duty of a practitioner to the public, to the practitioner’s employer, to the practitioner’s clients, to other licensed engineers of the practitioner’s profession, and to the practitioner to act at all times with... knowledge of developments in the area of professional engineering relevant to any services that are undertaken.” Accordingly, supervising engineers need to be reasonably knowledgeable with the work they supervise. Consequently, as indicated in section 5.3 of this guideline (Supervising Multidisciplinary Projects), there may need to be a supervising engineer for each discipline and even each sub-discipline in more complex projects.

Can an Ontario engineer assume responsibility for an engineering design made by a firm outside of Ontario for an Ontario project?

Yes, but only if the best practices outlined in this guideline can be reasonably met—notably the best practices outlined in section 5.4 (Assuming Responsibility for Work Done out of Province).

What are the professional obligations of supervising engineers if their professional engineering judgment is overruled by a non-technical authority, such as a client?

Section 72(2)(f) of Ontario Regulation 941 (professional misconduct) indicates that practitioners must “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.”

What are the professional obligations of subordinate engineers if their professional engineering judgment is overruled by their supervising engineer?

Section 72(2)(f) of Ontario Regulation 941 indicates that practitioners must “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.” Although this section specifically refers to a non-technical authority, it may be prudent for subordinate engineers to mirror the above approach in situations where the authority overruling their judgement is a supervising engineer. Subordinate engineers should consider documenting directions from a supervising engineer, which may include asking for written confirmation.

Can there be more than one supervising engineer in a project?

Yes. There could be a supervising engineer for each discipline and even each sub-discipline. Further, there could be different supervising engineers assigned to different sub-projects within a larger project. In these complex projects, the project supervision plan should clearly indicate the responsibilities of each supervising engineer and any hierarchy for engineering decision making.

DEFINITIONS

Assume responsibility

Accepting professional accountability for work directly undertaken or carried out under the engineer's personal supervision and direction.

Coordinating engineer

An engineer who is responsible for verifying that multiple supervising engineers and possibly other supervising professionals required to assemble a complete multidisciplinary project have coordinated their work. Coordinating engineers must seal the multidisciplinary engineering documents that they have reviewed for coordination.

Engineers

Applies equally in this guideline to professional engineers, temporary licence holders, provisional licence holders and limited licence holders as defined in the act.

Personal supervision

Supervision that requires the active involvement of the supervising engineer.

Practitioners

Engineers and firms that hold a certificate of authorization to offer and provide engineering services to the public as defined in the act.

Project supervision plan

A document that clearly outlines the decision-making process in an engineering project, and is developed and written by the supervising engineering before commencing work.

Out of province

Any jurisdiction outside of Ontario, such as Quebec, United States, Europe, etc.

Subordinate

Any person supervised by an engineer and who assists in the practice of engineering. A subordinate can be an engineer or an unlicensed person.

Supervising engineer

An engineer who has the authority to make engineering decisions on a project; advise the client or the employer; personally supervise the work of subordinates; direct subordinates in engineering matters; and, therefore, assumes responsibility for all or part of the engineering work in a project. Supervising engineers must seal the engineering documents of the project for which they are responsible. Supervising engineers should be responsible for coordinating their own work with others affected.

Supervision

Watching, directing and providing care and attention to the work while it is in progress as the nature and difficulties of the particular work reasonably demand.

Unlicensed person

A person who does not hold a licence issued by Professional Engineers Ontario to practise professional engineering in the Province of Ontario.



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