

Practice Guideline - Use of the Professional Engineer's Seal

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Notice: The Professional Standards Committee periodically reviews guidelines 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 practitioners 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 the Guideline Amendment and Revision Submission Form: <https://www.peo.on.ca/sites/default/files/2020-01/Guideline%20Amendment%20and%20Revision%20Form%20%28FINAL%29.pdf>

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1. Purpose of PEO Guidelines

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

For more information on the purpose of practice guidelines, the guideline development and maintenance processes, including the Professional Engineers Ontario (PEO) standard form for proposing revisions to guidelines, please read our document *Guideline Development and Maintenance Process*:

<https://www.peo.on.ca/sites/default/files/2020-01/Guideline%20Amendment%20and%20Revision%20Form%20%28FINAL%29.pdf>

To view a list of the PEO guidelines, please visit the Practice Guidelines section of the PEO website:

<https://www.peo.on.ca/knowledge-centre/practice-advice-resources-and-guidelines/practice-guidelines>

2. Preface

In September 2016 PEO Council approved the formation of a subcommittee of the Professional Standards Committee (PSC) comprised of practising professional engineers and tasked this group with proposing amendments to the Use of Seal regulations and revising the existing *Use of the Professional Engineer's Seal* practice guideline. The PSC directed the subcommittee to provide additional clarity regarding the obligations of practitioners sealing documents, and to address issues involving the seal and new technologies, such as digital files which eliminate the need for conventional two-dimensional drawings.

The subcommittee met for the first time on May 10, 2017. Following a public consultation and an external legal review the subcommittee submitted a completed draft of this document to the PSC for approval on xxxx xx, 2020.

Following the approval from the PSC, the final draft was approved by Council at its meeting on xxxx xx, 2020.

This guideline is to be read in conjunction with recent amendments dated xxxx xx, 202x to Section 53 of Regulation 941 made under the *Professional Engineers Act (the Act)*, which describe the statutory requirements for the use of the seal. Appendix 2 has a copy of these proposed amendments.

3. Purpose and Scope of Guideline

The purpose of this guideline is to provide practitioners with guidance on the proper use of the professional engineer's seal. The seal on engineering documents signifies that a practitioner assumes responsibility for the specified intent of the documents. Proper use of the seal is important for complying with *the Act*. Consequently, the application of the seal should be done only after the practitioner has evaluated documents and accepts responsibility for them.

Note that references in this guideline to “practitioners” means holder of a licence, a temporary licence, a provisional licence, a limited licence or a certificate of authorization in the province of Ontario, as the case requires.

4. Introduction

This guideline provides best practices and the requirements for use of the professional engineer’s seal. It provides a framework for practitioners to resolve issues that arise in common practice situations. Practitioners have often asked PEO to clarify, for example, what changes to sealed documents are allowed, and how the changes should be identified. Others have asked whose seal should appear when more than one practitioner has been responsible for preparing documents. The subcommittee reviewed several common situations to provide best practice guidance that expands upon the requirements in Section 53 of Regulation 941.

Since the use of digital documents, including their use for legal purposes, has become widespread, PEO recognized the need to provide additional guidance on creating, applying and controlling digital seals and signatures. Furthermore, digital copies of documents are often preferred for submission purposes; these require digital seals and signatures. This guideline, therefore, provides new best practice guidance to address the use of seals on digital documents.

5. Authority and Jurisdiction

The requirement to seal is addressed in *the Act*. The decision in *Professional Engineers Ontario v. Ministry of Municipal Affairs and Housing* confirmed PEO’s exclusive authority to regulate practitioners. Furthermore, *the Act* gives PEO authority to make regulations “requiring and governing the signing and sealing of documents and designs by members of the Association, holders of temporary licences and holders of limited licences, specifying the forms of seals and respecting the issuance and ownership of seals”. Consequently, the practitioner is the one who must determine whether a document can be reasonably viewed as containing engineering content and thereby needs to be sealed and should refer to the policies and procedures in this document for guidance in making that decision.

The Act is Ontario law. Therefore, it follows that when *the Act* refers to “public welfare” it refers to the public in Ontario. Furthermore, as noted in the *Professional Engineering Practice* guideline in most situations, a person requires a licence issued by PEO to practise professional engineering in Ontario. Consequently, it is reasonable to conclude that the use of seal requirements apply to practitioners assuming responsibility for engineering documents for specific engineering projects located in Ontario.

6. Purpose of the Professional Engineer’s Seal

The seal must be used to identify all work where a practitioner either prepared a document or assumed responsibility for any portion of the document’s engineering content. The purpose of the seal is specified in Section 53(2) of Regulation 941:

(2) Except as provided by Subsection (6) every practitioner shall sign, date and seal every engineering document where the practitioner either

(a) prepares the document; or

(b) in any other way assumes responsibility for any portion of the document's engineering content.

Assuming responsibility means the practitioner could be held accountable in the event of professional misconduct or incompetence regarding the engineering work as per Sections 28(2) and 28(3) of *the Act*. Consequently, a reasonably prudent practitioner must review or supervise work for which they will assume responsibility. For more information, practitioners should refer to PEO's practice guideline *Assuming Responsibility and Supervising Engineering Work*.

The seal by itself is not a guarantee by a practitioner of a successful outcome of a project, since the outcome depends on factors beyond the control of a practitioner. The seal is not, and should not be considered, a certification mark or warranty of correctness. The Supreme Court considered the purpose of the seal in *Edgeworth Construction Ltd. v. N. D. Lea & Associates Ltd.*, "The seal attests that a qualified engineer prepared the drawing. It is not a guarantee of accuracy..."

7. Recommended Procedures for Use of the Professional Engineer's Seal

7.1 General Considerations

7.1.1 Overview

The use of the professional engineer's seal is governed by Section 53 of Regulation 941/90, made under the *Professional Engineers Act*.

The entire Section 53 can be found in *Appendix 2. Extracts From Regulation 941, Professional Engineers Act*. Below are key extracts:

(4) *A practitioner who seals an engineering document shall ensure that the intended purpose of the document's engineering content is clearly stated on the document.*

(5) *Where a practitioner seals a document in which they are assuming responsibility for only a portion of the document's engineering content, the practitioner shall ensure the document clearly indicates for what portion of the document's engineering content the practitioner is assuming responsibility, and such indication shall include suitable text in the immediate vicinity of the practitioner's seal.*

This Section of the Regulation specifies the requirements on the use of seal. Practitioners are reminded that they are required to use their seals in situations that meet the conditions specified in Section 53. Use of the seal should not be included in contractual provisions in any agreement for the provision of engineering services, since the use of seal is a statutory obligation not a contractual one.

Section 53 also defines terms such as "engineering document" and "engineering content". It is essential for practitioners to understand the term "practice of professional engineering" when determining if they should seal a document. Consequently, practitioners must be familiar with the following definition from *the Act*:

"practice of professional engineering" means any act of planning, designing, composing, evaluating, advising, reporting, directing or supervising that requires the application of

engineering principles and concerns the safeguarding of life, health, property, economic interests, the public welfare or the environment, or the managing of any such act;

For additional insights into the definition of the “practice of professional engineering” practitioners should refer to the PEO practice guideline *Professional Engineering Practice*.

Proper use of the seal is essential, since broad compliance with these rules serves the public interest, by providing:

- *Accountability* – signing and sealing identifies the practitioner or practitioners who assumed responsibility for the document’s engineering content; and
- *Reliance* – by signing and sealing a document, a practitioner attests that others may place reasonable reliance on its engineering content for its specified purpose.

7.1.2 The Seal

The seal used on a document is the impression of the stamp issued by PEO to all licence holders. A practitioner should endeavor to always retain full control over the use of the seal and any reproduction of the seal so that no one other than the practitioner can use it. As noted in the following part of Section 53:

(10) Practitioners shall take reasonable steps to prevent their seals from being affixed without their consent.

Section 52 allows, but does not require, practitioners to use electronic seals. An electronic seal is an electronic representation of the design of a practitioner’s seal approved by Council under this section, and that is in a format consistent with the medium and nature of the document to which it may be affixed. An electronic seal has the same significance and status as a physical seal. Consequently, practitioners should always retain full control over the electronic version of his or her seal.

The seal must be clear and legible when applied to the document, regardless of how it is applied. An electronic seal may also include an electronic facsimile of the practitioner’s handwritten signature. However, the practitioner should maintain control over the signed seal and should use an appropriate security method (see Section 8.3).

7.1.3 What to Seal

With limited exceptions, practitioners must seal all completed engineering documents for which they are assuming professional responsibility where the document is not considered “draft”. However, affixing a seal to a document does not turn it into something that is “within the practice of professional engineering”. The content of the document determines its classification as an engineering document. This includes all documents containing engineering calculations, expressing engineering opinions, or giving instructions based on engineering judgment.

From the definition of “engineering document” in section 53, seals must be affixed to any drawing, specification, plan, report, , memoranda, study, design, model, or other document whether in print, electronic, or any other medium, that contains engineering content, and that does not meet any of the criteria for not requiring a seal.

Certain demand-side legislation requires that some specific tasks having public interest implications be done only by those having qualifications specified in the legislation, as defined by “qualified persons”. In cases where legislation includes professional engineers as qualified persons (e.g. *Condominium Act*) practitioners should only affix their seals to any documents required pursuant to the legislation if the work performed falls under the definition of “the practice of professional engineering” under the *Act*.

7.1.4 What not to Seal

Draft or incomplete documents are expressly forbidden from being sealed, as per Subsection (8) of Section 53 of Regulation 941.

Furthermore, draft documents should be marked clearly to identify them as drafts as this indicates why the document does not require a seal and why its engineering content should not be relied upon as if the document were sealed.

Documents of a non-engineering nature (personal or business correspondence, contracts, leases, sales brochures, passport applications, etc.) shall not be sealed. As per *the Act*, the requirement for sealing only applies to engineering documents.

Practitioners cannot use their seal as a notary seal where a notary seal is required. Contracts and other legal business documents are sealed with a corporate seal, if the business entity is a corporation. If not, signatures suffice. Professional engineer seals are not to be used for this purpose as these are not engineering documents, even if they relate to an engineering business. Birth certificate applications and other non-engineering documents that identify professional engineers as suitable guarantors generally require only the guarantor’s signature and should not be sealed.

Under Section 75 of Regulation 941, practitioners are not permitted to use or refer to their professional seals in company logos, advertising, letterhead, business cards, or other promotional materials.

7.1.5 Exceptions from sealing requirements

Subsection (6) of Section 53 contains the following exceptions from sealing requirements:

- (a) Any document prepared by a practitioner solely for use within the employer’s legal entity, or*
- (b) Any document for which the preparation of its engineering content is entirely exempt from the licensing requirement of the Act.*

In other words, engineering documents prepared solely for internal use do not have to be sealed. Furthermore, documents whose engineering content is exempt from the licensing requirements under Section 12 of the *Act*, do not have to be sealed either.

However, a practitioner who assumed responsibility for the engineering content of any of these exempt documents may still choose to seal them for traceability purposes as an enhanced practice, as noted in Subsection (7) of Section 53:

- (7) Engineering documents not required to be sealed solely as a result of Subsection (6) may still be sealed.*

(a) Where such documents are sealed, they shall meet the requirements of Subsections (3) to (5).

7.1.6 Who seals

The practitioner or practitioners who are taking professional responsibility for the work must seal documents.

Some engineering managers mistakenly assume they are supposed to seal all documents issued from their department in their capacity as managers. This is a misunderstanding of the purpose of the seal, because the seal identifies the practitioner taking professional responsibility for the professional engineering content of the documents. Hence, only that practitioner should seal them.

Another common misconception is that only practitioners working for a certificate of authorization (C of A) firm have an obligation to seal documents. This is false, since the obligation to use the seal on applicable engineering documents applies to all practitioners.

7.1.7 Procedure

The procedure for sealing documents is contained in Subsection (3) of Section 53:

(3) The signature and date required by Subsection (2) or otherwise accompanying a seal shall

(a) not obscure or otherwise alter the practitioner's name or licence number;

(b) be applied

(i) in a legible manner;

(ii) either within or immediately adjacent to the seal, or in immediate association with the seal; and

(iii) either concurrently or immediately after the seal is affixed.

Initials alone are not acceptable. The practitioner's handwritten signature is an authenticating mark that complements the seal. The handwritten signature affixed to the document can be an electronic facsimile of a handwritten original.

Since February 28, 2003 PEO has issued stamps that include the practitioner's licence number. Consequently, some practitioners may have the older stamps without the licence number. For ease of traceability, it is best practice to manually write the licence number when sealing documents with the physical stamp, if the stamp does not already include it. For example, adding the licence number helps avoid a case of mistaken identity with a practitioner who may have the same name or a similar name to the practitioner sealing the documents. When sealing documents using an electronic seal, the practitioner's licence number must be included regardless of whether their rubber stamp includes the licence number or not. The requirement is different for electronic seals since electronic seals can be created or edited by the practitioner and therefore can include the licence number without having to manually add it every time the seal is used.

Engineering documents cannot be signed by a proxy, that is by another person signing on behalf of (“per”) the individual identified on the seal.

Specifications and reports should be sealed on the cover of the bound document, or on a separate approval sheet within the document.

Because of the risk of sealed originals being copied and distributed without a practitioner’s knowledge, practitioners should ensure that their employer has an effective and secure document control system appropriate for the risks associated with the particular circumstances in place (see Section 8.2).

7.1.8 Purpose of the engineering document

As per Subsection (4) of Section 53 practitioners must clearly note the intended purpose of the sealed document’s engineering content:

(4) A practitioner who seals an engineering document shall ensure that the intended purpose of the document’s engineering content is clearly stated on the document.

Failing to indicate the purpose of the engineering document would therefore constitute professional misconduct on the part of the practitioner under 72(2)(g) of O.Reg. 941.

The level of detail applicable to the engineering content of a document may depend considerably on the purpose for which the document is intended to be used. The document stated intended purpose can make the difference between whether the document’s preparation includes the practice of engineering. Without a stated purpose, an engineering document might be used for an unintended purpose, which could be a serious risk to the public. Documents not sealed as a result of being “draft” or other reason why they don’t meet the threshold of “engineering document” should also indicate the reason why the content is not intended to be relied upon, as this establishes not only why the document is not required to be sealed, but also why the document should not be relied upon as if it were sealed. Adding a purpose to an unsealed document helps prevent misuse and protects the engineer.

Furthermore, the stated purpose of a document could include limitations, and a scope of the engineering work for which the practitioner is assuming responsibility.

7.2 One practitioner assumes responsibility

When a single practitioner assumed responsibility for the engineering work in a document, this practitioner must seal the document.

7.3 Multiple practitioners assume responsibility

For an engineering document covering work done by multiple practitioners each practitioner taking responsibility for a specific part of the document must seal it. Furthermore, each practitioner must indicate what area of the work they are responsible for, as per Subsection (5) of Section 53:

(5) Where a practitioner seals a document in which they are assuming responsibility for only a portion of the document’s engineering content, the practitioner shall ensure the document

clearly indicates for what portion of the document's engineering content the practitioner is assuming responsibility, and such indication shall include suitable text in the immediate vicinity of the practitioner's seal.

7.4 Revising sealed documents

Occasionally sealed documents may need to be edited, altered or amended, either during the course of the project, or as part of a new project. To ensure that practitioners are informed of any proposed revisions to documents that they sealed, it is important that engineering documents undergo an appropriate revision process as described below or one that follows a recognized industry standard.

Where alteration of documents sealed by another practitioner is required for an ongoing project, the following procedure should be followed: The original seal is to remain and the practitioner altering the documents is to add his or her seal, clearly identifying the alterations.

Where alteration of documents (particularly drawings) sealed by another practitioner for a completed project is required for a new project, the following procedure should be followed: The documents used as the basis of the new work should be clearly identified by a note, a drawing method such as lighter or ghosted lines or an identifying mark, as work previously done by others; the original seal is not to appear and the practitioner altering the documents is to add his or her seal, clearly identifying the alterations.

For purposes of transparency, it is beneficial for the practitioners who sealed the original documents to be informed of changes to these documents. In general terms, the practitioner making changes assumes professional responsibility for the changes and the effects of those changes on the design. This is the reason why the practitioner making the changes must identify his or her changes and then seal the document. By sealing, that practitioner acknowledges that he or she is taking professional responsibility for the changes and the consequences of those changes.

7.5 Shop drawings

The *Canadian Construction Documents Committee's CCDC 2 - 2008 Stipulated Price Contract* defines Shop Drawings as follows:

Shop drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, product data, and other data which the contractor provides to illustrate details of portions of the work.

Shop drawings are typically required for prefabricated components.

Below two types of shop drawings are discussed:

1. shop drawings with application specific engineering content, and
2. shop drawings without application specific engineering content.

7.5.1 Shop drawings with application specific engineering content.

Because shop drawings with application specific engineering content are provided by the contractor, it follows that either an in-house practitioner employed by the contractor or a practitioner engaged by the contractor must assume responsibility for engineering content in the shop drawings by sealing them before submitting them to the project practitioner doing most of the design work in the project. The project practitioner does not assume responsibility for the engineering content in the shop drawings and is usually responsible for providing the fabricator with the design criteria.

7.5.2 Shop drawings without application specific engineering content

Shop drawings without application specific engineering content do not contain professional engineering content, and therefore do not require a practitioner assume responsibility for its work and hence do not need to be sealed.

7.5.3 Conformance review of shop drawings

Through agreements or contracts, practitioners are often required to review shop drawings prepared by others for the purpose of confirming the compliance of the design with the specifications and drawings. Generally, this review is for the sole purpose of ascertaining conformance with the general design concept and does not indicate an approval of the design details. In other words, the practitioner reviewing the shop drawing for conformance is not taking responsibility for the design. Therefore, practitioners undertaking this type of review must not affix their seals to shop drawings. If any party requires that the drawings be marked with an indication that a conformance review has taken place, a separate and distinct “shop drawing” stamp should be used.

NOTE: To protect themselves, practitioners should never provide services without a signed agreement that clearly describes the scope of services to be provided, clearly limits the obligations of the practitioners, and clearly assigns the risks that the practitioner will assume. Practitioners should assume only risks that are within their ability to control and never those where the performance of a third party, such as a contractor or supplier, might influence the outcome.

To avoid liability for information contained in shop drawings, the reviewing practitioner’s organization should explicitly limit the scope of the practitioner’s review, both in the contract for engineering services and on the shop drawing stamp itself. Shop drawing stamps should include language that strictly limits any implied approval, by noting that the scope of the submittal review is limited to determining conformance with the design intent and the information provided in the project documents.

7.6 Typical detail drawings

Below two types of typical detail drawings are discussed:

- Component drawings, and
- Preferred standard drawings.

7.6.1 Component drawings

A component drawing is a drawing of an off-the-shelf element which may follow an industry standard, such as the Canadian Standards Association (CSA). Because these components are generally manufactured and tested as per an industry standard and their drawings do not contain application specific engineering content, these component drawings therefore do not require a practitioner to assume responsibility for its work and seal the drawings. However, an assembly drawing that uses these components and has application specific engineering content would likely require that a practitioner assume responsibility for that engineering content and seal the drawing.

7.6.1 Preferred detail drawings

A preferred detail drawing is a drawing prepared by a third party for use in project documents prepared by others. Preferred detail drawings that have engineering content require engineering supervision and should also be sealed. Furthermore, a drawing that incorporates these preferred details and has engineering content requires a practitioner to assume responsibility for this work and thereby would require to be sealed. However, the project practitioner selecting the preferred detail drawing should add a note to clarify that they are not responsible for the engineering content of the preferred detail drawings.

7.7 As-Built and Record Documents

Practitioners should use the following distinction between as-built and record documents. Documents referred to as “As-Built” are generally prepared using information furnished by the contractor or other field staff. Record documents are those prepared by a practitioner after verifying the actual details of the completed project. For some projects, this verification may require frequent or continuous presence on site. The distinction between as-built and record documents determines whether the documents representing the final state of the project should be sealed.

For detailed information on as-built and record documents refer to the PEO guideline *Preparing As-Built and Record Documents*.

7.8 Reliance on Sealed Documents

As previously noted, the seal attests that a qualified practitioner prepared an engineering document. It is not a guarantee of accuracy. Furthermore, the seal of a practitioner communicates that the contents of sealed documents reflect professional knowledge and care, and that responsible provision has been made in the preparation of those document for complying with applicable statutes, standards, codes, and regulations. Consequently, it is reasonable for authorities or other parties to adopt a policy of reliance upon the expertise of practitioners. However, such a policy of reliance upon engineering expertise would have to be implemented in a consistent and reasonable manner. For more detailed information on these concepts refer to the decision *Hilton Canada Inc. v. Magil Construction Ltd.*

Those placing reasonable reliance on a document sealed by another practitioner as the basis of further work should verify that the practitioner who sealed the work was licenced when he or she sealed the document. This can be achieved by visiting PEO's online Directory.

7.9 Engineering Documents containing more than one language

Practitioners are occasionally required to provide documents in a language other than their usual business language. Furthermore, practitioners must be technically fluent in the language of the document they are sealing if the language content of the document is part of its engineering content. Finally, practitioners must determine whether their language proficiency is sufficient to meet the professional standard expected of them, just as practitioners must determine in what areas they are competent to practice.

7.10 Intellectual Property issues

Practitioners issuing sealed documents should collaborate with their clients on developing written agreements that clearly address Intellectual Property issues. For more information on Intellectual Property as it relates to engineering documents please refer to the *Professional Engineering Practice* guideline.

8. MANAGEMENT OF SEALED DOCUMENTS

8.1 Assuming responsibility for document

Every individual or organization preparing engineering documents should have a formal process for checking, verifying, and assuming responsibility those documents. This process should, at least, include the following stages:

- checking to ensure a document is complete and accurately expresses the output of the practitioner's design or analysis;
- verifying to ensure the document meets the requirements of the work as expressed by codes, standards, PEO guidelines, contractual arrangements and other articles defining the scope of work; and
- sealing the document by the practitioner(s) who assumes professional responsibility for the engineering content in the document.

8.2 Control of sealed documents

Practitioners should adhere to a document control process that reduces the possibility of:

- others altering sealed documents without the knowledge of the author, and without a practitioner assuming responsibility for the changes and consequences of these changes;
- removal, or duplication and unauthorized use, of seal; and
- unauthorized use of documents.

To provide this protection, the document control process should incorporate the following, non-exclusive, features:

- a sealing procedure to ensure that engineering documents are sealed by the practitioner assuming responsibility for the work before they are issued;
- procedures that assure data integrity by prohibiting unauthorized and/or undocumented changes;

- procedures to identify unauthorized copies of final documents and to prevent them being sealed;
- procedures for validating records before storage;
- established document retention periods as per the *Professional Engineering Practice* guideline; and
- protection of records against loss or inadvertent destruction.

8.3 Use and control of sealed electronic documents

Subsection 6 of Section 52 of Regulation 941 allows for the use of electronic seals and electronic signatures:

(6) A practitioner may apply either an electronic image of his/her seal and/or electronic signature to a document.

Consequently, the use of seals on electronic format documents is allowed. This includes the use of scanned and electronically drawn seals on electronic documents and scanned copies of sealed original hardcopies. The principles applying to sealing paper documents apply equally to engineering documents created, stored, distributed, or used in electronic formats. The control of documents per Section 8.2 of this guideline also apply to electronic documents.

Furthermore, Subsection (7) of Section 52 sets minimum requirements for electronic seals:

(7) Where an electronic seal is used, it shall

- (a) be of a size so it is reasonably visible within the document relative to the document's other content; and*
- (b) include the practitioner's licence number.*

Because unsecure electronic documents can be easily edited and copied, engineering practitioners should have well documented processes to support the authenticity and validity of documents with electronic signatures and seals. Managing electronic documents in workflow and providing an audit trail is vital to validating document authenticity. Consequently, practitioners responsible for sealing electronic documents should ensure a method of creating, archiving, and distributing electronic format documents exists that will:

- control and protect the electronic facsimile of the seal and signature;
- protect the documents, so documents are not altered once signed, without undergoing the revision process; and
- allow verification of the identity of the practitioner from whom the document originated.

Electronic documents should be issued for use only if the authentication procedure maintains the integrity of the documents and the authenticity of the seal and signature. Document recipients must, in turn, ensure they have a process to assure that a document they receive is authentic and has not been altered.

Given these requirements, practitioners planning to issue and distribute electronic engineering documents should implement some form of document security. There are many forms for such security, ranging from use of image files that are not as easily edited, to password protected

files, to public-key/private-key encryption systems. The security method employed should be appropriate for the distributed document's risk of alteration or improper use. information Technology expertise may be required in consideration of the following:

- How will the recipient use the documents?
- Does the recipient have a secure document storage and control process?
- Are you concerned about potential tampering of the document?
- Are you concerned about potential removal and reuse of your seal and signature without your knowledge?
- Are you concerned that the recipient may reuse the document for purposes other than the one for which you are specifically accepting responsibility?

Practitioners should consider including clauses related specifically to procedures governing electronic documents, since no secure system is perfect.

The seal and signature discussed in this guideline should not be confused with a security tool known as an "electronic signature", which is encrypted alphanumeric data used as personal electronic identifying information that people attach to a document to permanently associate themselves with the document. It is not an identical electronic copy of a handwritten signature obtained by scanning or electronic pen. An electronic signature is, however, intended to have the same legal force and distinguishing effect as the use of a signature affixed by hand. For this reason, an electronic signature must be:

- unique to the person using it;
- capable of verification;
- under the sole control of the person using it; and
- attached to, or associated with, data in such a manner that it authenticates its own attachment to the data using it and the integrity of the data transmitted.

8.3.1 Digital Signature Software Solutions

Currently, PEO does not specifically endorse any one digital signature software solution. Furthermore, PEO's position is that practitioners can use any digital signature software that meets the requirements outlined in this practice guideline. Finally, practitioners should consider the following best practices for protecting sealed electronic documents:

- Secure Hash Algorithms can be used to determine if a digital document was altered;
- Transmittal records can be used to identify the particulars of documents issued;
- Watermarks can be used to better safeguard a professional engineer's digital seal from misuse; and
- Practitioners may consider adopting digital signature software solutions that meet the requirements contained in this guideline; and

Practitioners may need to consult with IT security experts to minimize risks associated with using digital documents, since no security method is completely foolproof.

At the time of publication of this guideline, practitioners can obtain a digital signature through Notarius, as an option.

9. Professional Responsibility

9.1 What is Professional Responsibility?

Professional responsibility refers to practitioners' obligations to conduct themselves in accordance with the technical, legal and ethical standards of the profession. Whenever individuals act in their capacity as professional engineers, they must be prepared to answer for their conduct in discharging their obligations to the profession and to the public. The seal is an indication of who is taking professional responsibility for the content of a document. By affixing the seal, a practitioner agrees to take responsibility and to be accountable for his or her work.

Accepting this responsibility is part of the commitment made by each individual when accepting the exclusive right to practise afforded by the professional engineer's licence. Furthermore, the use of the seal is a statutory obligation; and therefore, is not optional. Failing to seal an engineering document as per Section 53 of Regulation 941 is a violation of the *Professional Engineers Act*. The implications associated with failing to seal a document that meets the sealing requirements are the same as any act of professional misconduct: The practitioner could be disciplined by PEO, and there have been discipline cases in which one of the charges was failing to seal.

It is important to note that the Supreme Court of Canada noted that sealing is a matter of professional discipline not a matter of civil liability for the practitioner, particularly liability for negligent misrepresentation.

Failure of a practitioner to sign and seal an engineering document does not relieve the practitioner of professional responsibility, since sealing of documents by practitioners has nothing to do with the question of liability for negligence. Practitioners are responsible because they prepared the documents, or because they otherwise reviewed and approved the engineering content, not because they signed or sealed them. Similarly, affixing a seal does not impose on a practitioner the burden of additional civil liabilities if the document meets the threshold for requiring a seal or for permitting a seal to be applied. The courts assign liability based on the facts, not on whether the document is sealed.

9.2 Assuming responsibility for work performed by others

Practitioners must never affix their seals to documents they have had no part in preparing or reviewing. Such conduct could be considered negligence or misconduct under Regulation 941. However, practitioners may still seal documents prepared by others if the practitioner reviews and accepts responsibility for the document's engineering content in a manner consistent with the standards of a reasonable and prudent practitioner. For more information refer to the PEO practice guideline *Assuming Responsibility and Supervising Engineering Work*.

9.3 Penalty for misuse of seal

Anyone who illegally uses an engineering seal could be found guilty of an offence under Section 40 of the *Professional Engineers Act* and could be fined up to a maximum of \$10,000 for a first offence, and \$25,000 for any subsequent offence. In cases involving the illegal use of an engineering seal, police could also lay fraud or forgery charges. Generally, it is unlicensed persons, operating without the knowledge or consent of a practitioner, who carry out these

offences. This is one of the reasons why practitioners should store and use their seals in a secure place.

PEO has prosecuted individuals who have used illegally obtained seals or forged replicas. There have also been cases where unlicensed individuals have obtained digital copies or sheets of photocopied transferable facsimiles of a practitioner's seal and used them fraudulently.

9.3 Ownership and replacement of seal

Every seal given to a licence holder remains the property of Professional Engineers Ontario. The seal must be returned to PEO upon retiring or resigning as a member. Under Section 54 of Reg 941 a practitioner whose licence is revoked or suspended must also return his or her seal to the Registrar. Furthermore, practitioners retiring or resigning or whose licence is revoked or suspended must dispose of all their electronic seals, so they are not misused.

If a practitioner's seal is lost or stolen, the practitioner should notify PEO immediately. Replacement seals can be obtained by contacting PEO.

10 Managing Disagreements on Whether a Document should be Sealed

As previously noted, the use of seal is a statutory obligation. Consequently, to avoid confusion it is best not to include clauses related to the use of seal in contractual agreements, since sealing documents should not become a contractual obligation.

The use of an engineer's seal is a matter of professionalism and not an independent source of civil liability. Consequently, if in doubt, practitioners are generally better off affixing the seal than withholding it on documents they consider containing engineering content. Affixing the seal avoids an allegation of professional misconduct for failing to seal a document, and there is no downside of civil liability or professional misconduct in affixing the seal to a document that may reasonably be considered a product of engineering.

In case of a disagreement with a client or an authority on whether a document should be sealed, practitioners are advised to use this practice guideline as a framework to come to an understanding. However, since the use of seal is a statutory obligation, ultimately it is the practitioner's decision on whether a document should be sealed.

Engineering organizations are encouraged to decide early which practitioner or practitioners will be assuming responsibility for certain work. This way there is no doubt about who should be sealing specific work once a project begins.

APPENDIX

Appendix 1 - Definitions

Where such definitions conflict or differ from what is in applicable legislation, the regulatory definition replaces the one used in this guide. For the purposes of this guideline:

“Document integrity” means that information in a document has not been altered and has been maintained in its entirety.

“Draft” or “incomplete” are preliminary documents which must not be sealed since a practitioner has not assumed responsibility for them for a specific purpose.

“Handwritten signature” is a name or personal mark, in handwritten form, that a person affixes to a document and routinely uses to express consent or acknowledge responsibility with respect to the document, or to authenticate it.

“Original” is a document that emanates directly from the author and is the only authentic source for copies or reproductions. In the case of technology-based documents, the integrity of the original must be ensured, and the original must be capable of being linked to a person, whether or not the document is released.

“Sealed” means a document is signed, dated, and bears an impression of the professional engineer’s stamp.

“Shop drawings” are drawings, diagrams, illustrations, schedules, performance charts, brochures, product data, and other data which the contractor provides to illustrate details of portions of the work. (From the Canadian Construction Documents Committee’s CCDC 2 - 2008 Stipulated Price Contract).

Appendix 2 - Extracts from Regulation 941, Professional Engineers Act

(Important: the amendments below are expected to come into effect on July 1, 2022. Though the actual wording may be revised by then.)

(1) In this section,

“affix”, with respect to a seal, means impose the seal on a document in a manner that attaches or embeds the seal into the document such that the seal is visible to users of the document.

“engineering content” means that portion of a document’s content, either explicit or implicit, whose preparation, involves the practice of professional engineering.

“engineering document” means a drawing, specification, plan, report, design, model, or other document whether in print, electronic, or any other medium, that contains engineering content and is intended to be used for a purpose or act that encompasses or requires the practice of professional engineering.

“employer” means, if the practitioner is self-employed, the practitioner, otherwise, the entity directly employing the practitioner.

“licence number” means a licence number, limited licence number, provisional licence number, or temporary licence number, as the case may be.

“prepare”, with respect to a document containing engineering content, means engaging in the practice of professional engineering that results in the document’s engineering content; “preparation” has corresponding meaning.

"seal", when used as a noun, means the image or graphical representation of the design of a practitioner's seal approved by Council under section 52, and includes an electronic seal, and, when used as a verb, means to affix the seal to a document.

- (2) Except as provided by subsection (6), every practitioner shall sign, date and seal every engineering document where the practitioner either
- (a) prepares the document; or
 - (b) in any other way assumes responsibility for any portion of the document’s engineering content.
- (3) The signature and date required by subsection (2) or otherwise accompanying a seal shall
- (a) not obscure or otherwise alter the practitioner’s name or licence number;

- (b) be applied
 - (i) in a legible manner;
 - (ii) either within or immediately adjacent to the seal, or in immediate association with the seal; and
 - (iii) either concurrently or immediately after the seal is affixed.
- (4) A practitioner who seals an engineering document shall ensure that the intended purpose of the document's engineering content is clearly stated on the document.
- (5) Where a practitioner seals a document in which they are assuming responsibility for only a portion of the document's engineering content, the practitioner shall ensure the document clearly indicates for what portion of the document's engineering content the practitioner is assuming responsibility, and such indication shall include suitable text in the immediate vicinity of the practitioner's seal.
- (6) The following engineering documents are not required to be sealed:
 - (a) Any document prepared by a practitioner solely for use within the employer's legal entity, or
 - (b) Any document for which the preparation of its engineering content is entirely exempt from the licensing requirement of the Act.
- (7) Engineering documents not required to be sealed solely as a result of subsection (6) may still be sealed.
 - (a) Where such documents are sealed, they shall meet the requirements of subsections (3) to (5).
- (8) Draft or incomplete documents shall not be sealed
- (9) For the purpose of subsections 28(2) and 28(3) of the Act, the presence of one or more seals on a document shall be an indication that the practitioner or practitioners whose seals are affixed to the document have jointly and severally assumed responsibility for the document's engineering content, except to the extent that may be indicated by any qualifications or limitations that are clearly indicated on the document and reasonably understandable by users of the document.
- (10) Practitioners shall take reasonable steps to prevent their seals from being affixed without their consent.

- (11) The absence of a seal from a document that is either required to be sealed or not sealed as a result of the document not requiring a seal under subsection (6) does not alter the responsibility of the practitioner or practitioners who are required to seal the document or otherwise not required to seal the document under subsection (6).
- (12) Seals shall not be affixed to any document or other material except in accordance with this section.