

The P.Eng. Seal is What It's All About

Introduction:

For the Nova Scotia public, the engineer's seal constitutes the distinctive mark of the professional engineer. It is used to identify all work prepared by, or under the direct supervision of, a professional engineer as part of professional engineering services rendered. It assures the document's recipient that the work meets the standards of professionalism expected of competent experienced individuals who take personal responsibility for their judgments and decisions. The seal is important because it is a visible commitment to the standards of the profession and signifies to the public that a particular P.Eng. has accepted professional responsibility for the document.

Affixing the seal to a document is a statement by a professional engineer to others that they can, with a high degree of confidence, depend upon the contents of the document for the furtherance of their projects. Since the outcome of a project depends on factors beyond the control of an engineer however, a successful outcome cannot be guaranteed by an engineer. The seal is not, and should not be considered, a certification mark or warranty of correctness. According to the Supreme Court of Canada (*Edgeworth Construction Ltd. v. N. D. Lea & Associates Ltd.*), the "seal attests that a qualified engineer prepared the document. It is not a guarantee of accuracy". Instead, it should be considered a "mark of reliance", an indication that others can rely on the fact that the opinions, judgments, or designs in the sealed documents were provided by a professional engineer held to high standards of knowledge, skill and ethical conduct.

Every holder of an A.P.E.N.S. P.Eng. licence who provides to the public a service that is within the practice of engineering shall sign, date and affix the holder's seal to every final drawing, specification, plan report or other document prepared or checked by the holder as part of the service before it is issued.

The term "final document" describes any record, written or graphic, created for the purpose of transmitting information or instructions based on engineering expertise or judgement that is intended to be relied on by others. In general, "final" means "final for the purposes intended". This distinguishes, for example, drawings prepared for building permit submission from construction drawings. Drawings submitted for building permits are final for the purpose, even though they may not contain all of the detail required for construction. Both sets of drawings need to be sealed. Drawings submitted with a building permit application must be complete for that purpose; in other words, they must contain sufficient detail to enable the building official to perform the code compliance and due diligence reviews required prior to the issuance of a building permit.

Proper use of the seal is essential, since compliance with these rules provides the following assurances to the public:

- authorship - signing and sealing identifies that the document was created by or under the supervision of a licensed professional engineer;
- responsibility - signing and sealing establishes that the individual identified by the seal assumes professional responsibility for the contents of the document he or she prepared and acknowledges that he or she can be held accountable for those contents; and
- reliance - by signing and sealing documents, a professional engineer attests to the fact that others can rely on the designs, decisions, opinions, judgments or other professional statements expressed therein.

The seal:

The seal used on a document is the impression of the rubber stamp issued by APENS to all licence holders. An engineer must always retain full control over the use of the seal and any reproduction of the seal so that no one can use it without explicit authorization. Such authority should not be given unless the engineer had direct supervision of the work.

APENS also allows licensees to use electronic seals. An electronic seal is a facsimile of the impression produced by the rubber stamp in electronic format, either scanned or created as a drawing object by a software program. The electronic facsimile must be identical in size, shape, and content to the seal created by the rubber stamp. This impression has the same value as an impression generated by the original of the seal. An engineer must at all times

retain full control over the electronic version of his or her seal. An engineer allowing another person to access an electronic seal could be held liable for any use made of the seal by that person.

The seal must be clear and legible when applied to the document, regardless of how it is applied. An electronic facsimile of the seal may also include an electronic facsimile of the engineer's handwritten signature. However, the engineer must maintain control over the signed seal and must use appropriate security methods.

What to seal:

Engineers must seal all final documents that are within the practice of professional engineering, provided as part of a service to the public. 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 whether it is an engineering document. This includes all documents containing engineering calculations, expressing engineering opinions, or giving instructions based on engineering judgement.

Seals must be affixed to drawings, specifications or sketches accompanying change notices and site instructions, and studies containing technical information or engineering direction. Engineers should also apply their seals to forms for government or regulatory authority use that specifically require a professional engineer's seal.

Reports providing technical information or engineering direction to the user must be signed and sealed. Drawings bound into reports need not be sealed individually, provided the document itself is signed, sealed and dated. In general, draft or preliminary documents should not be sealed and should be clearly marked as "Draft", "Preliminary", "For Review Only", "For Discussion", "Not for Construction", or some other indication that the documents are not ready for anyone to rely on the contents. Professional engineers should closely control such documents and not release them to anyone who might depend on the validity of the contents. If it is necessary to sign and seal preliminary documents (such as to fulfill the requirements of a regulatory agency), this guideline's recommendations for sealing final documents should be followed. Signed and sealed preliminary documents should be clearly marked as incomplete and restricted to the particular use for which the document was released.

Electronic Documents:

Nova Scotia law gives legal recognition to electronic documents, even in cases where the document exists only in electronic format. It defines electronic documents as documents "created, recorded, transmitted or stored in digital form or in other intangible form by electronic, magnetic or optional means or by any other means that has capabilities for creation, recording, transmission or storage similar to those means". By this definition, a drawing created using a computer-drafting package, a faxed copy of a letter, and a report stored on a compact disk are all electronic documents. Use of seals on electronic format documents is now 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.

Because electronic documents can easily be changed and copied with no obvious indication, engineering organizations must 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, professional engineers responsible for sealing electronic documents must ensure that their organizations adopt a method of creating, archiving and distributing electronic format documents that will:

- control and protect the electronic facsimile of the seal and signature;
- ensure document integrity, i.e. documents are not altered once signed, without undergoing the revision process;

and

- allow verification of the identity of the practitioner originating the document.

Electronic documents can 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 has been authorized and has not been tampered with.

Ownership and Replacement of Seal:

Every seal given to a licence holder remains the property of APENS. The engineer to who it is issued has exclusive use of it for as long as he or she is a member in good standing of the association. The seal must be returned to APENS upon retiring or resigning as a member.

If your seal is lost or stolen, notify the association immediately.

Conclusion:

The P.Eng. Seal is the distinctive mark of the professional engineer and signifies for all to see that a particular practitioner is accepting professional responsibility for the engineering work described. It represents a “mark of reliance” that the engineer’s work can be “relied” upon to be correct and in the best interests of the client and the public.

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