

APEGNB

Association of Professional Engineers and Geoscientists of New Brunswick

## GUIDELINE FOR USE OF PROFESSIONAL SEAL



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## 1.0 INTRODUCTION

The Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB) Engineering and Geoscience Professions Act and the By-laws including the Code of Ethics establish the basic requirements for the use of the professional seal. This guideline elaborates on those requirements and is presented for use by the members and licencees of APEGNB. It replaces the May 2000 version and applies to all disciplines of engineering and geoscience.

## 2.0 AUTHORITY

### Engineering and Geoscience Professions Act (2015)

- 7(1) The Association may make by-laws consistent with the provisions of this Act for...
- (i) issuance and use of seals by members, licencees, and holders of certificate of authorization.

### By-laws, Section 12, Seals

- 12.1.0 All persons entered in the Register as Regular Members shall be issued a seal of design approved by Council, the impression of which shall include the name of the person and the words “Registered Professional Engineer” or “Registered Professional Geoscientist” and “Province of New Brunswick”.
- 12.1.1 All persons entered in the Register as a Licencee shall be issued a seal of design approved by Council, the impression of which shall include the name of the person and the words “Licenced Professional Engineer” or “Licenced Professional Geoscientist” and “Province of New Brunswick”.
- 12.1.2 A seal issued under sections 12.1.0 or 12.1.1 remains the property of the Association and shall be returned upon request. All seals are issued for the exclusive use by the seal holder who shall prevent unauthorized use and safeguard against loss.
- 12.1.3 All persons issued a seal under this section shall sign, date, and affix the seal provided to all final drawings, specifications, plans, reports, and other documents pertaining to the practice of the Professions or to all final drawings, maps or reports, prepared by or under the direct supervision of a person practicing the Professions entered in the Register.
- 12.1.4 All documents referenced in section 12.1.3 may be prepared, authenticated and issued solely in electronic form on condition that:
- (1) the document must show the image of the stamp referenced in 12.1.3;
  - (2) the document must show the image of the signature referenced in 12.1.3; and
  - (3) the document must show the date referenced in 12.1.3.

12.1.5 Standards not inconsistent with this by-law with respect to the use of seals and the authentication of professional documents may be approved by Council from time to time as a practice standard.

12.1.6 Failure to affix a seal in the manner contemplated in 12.1.3, 12.1.4 and 12.1.5 constitutes professional misconduct and is subject to enforcement through the disciplinary procedures of the Act.

## By-laws, Part II, Code of Ethics

Engineers, geoscientists...shall:

4.6 not sign or seal drawings, specifications, plans, reports or other documents pertaining to engineering works or systems or geoscience works unless actually prepared or verified by them or under their direct supervision

### 3.0 DEFINITIONS

- Act* - Engineering and Geoscience Professions Act
- Authentication* - Application of the professional seal, signature and date.
- Certificate Authority* - A trusted, third-party organization that issues digital certificates. The certificate authority must have a relationship with APEGNB to access member identities and continued professional status.
- Digital Certification* - Encryption technology applied to electronic documents to verify their origin and integrity.
- Document* - *Engineering: A work product that expresses engineering work, typically as a result of an analysis or design process, e.g. engineering drawings; specifications and design requirements; instructions; design notes and calculations; reports based on engineering judgment, opinions, evaluations, certifications, condition assessments, analysis or verifications.*
- *Geoscience: A work product that expresses geoscientific work, typically as a result of an interpretation, analysis or design process, such as seismic programs, maps, cross-sections and reports.*
- Electronic Document* - A work product created and recorded in an electronic format, e.g. an electronic mail message, facsimile or drawing.

- Final Document* - *A professional work product issued to another person/ entity as an approved document on which they can rely as final for its intended purpose. Documents provided for review or comment are not considered final.*
- Licencee* - *A person, non-resident of New Brunswick, not eligible to be a member, licensed to practice the Professions.*
- Member* - *A person, resident of New Brunswick, licensed to practice the Professions and does not include a licencee or holder of a certificate of authorization.*
- Registrant* - *A member or licencee*
- Responsible Professional* - *A professional engineer or geoscientist registered as a member or licencee of APEGNB who prepares documents or under whose direct supervision has documents prepared.*
- Seal* - *When used as a noun, the term refers to the stamp issued by APEGNB. As a verb, the term “to seal” refers to the application of the professional seal, signature and date. It is synonymous with the term “authenticate”.*
- Software* - *All information, commands, instructions, programs or procedures required to use and operate a computer system, one of its components, or any other digital data processing device. Software is independent of the medium on which it is recorded.*
- Stamp* - *Synonymous with seal. The words seal and stamp are often used interchangeably.*

#### **4.0 SCOPE**

This guideline describes the use of the APEGNB professional seal when authenticating engineering or geoscience work products. These requirements apply equally to work products prepared by registrants for use by their in-house employers and to those prepared for external clients or authorities.

#### **5.0 CUSTODY & CONTROL OF SEAL**

Upon registration and payment of dues, the seal is issued to members or licencees by APEGNB. It remains the property of APEGNB and is to be returned upon request. Members are issued a perpetual seal at the time of initial registration. Seals are issued to licencees for the calendar

year in which they are registered.

Members and licencees are to be the sole users of their seals and are to prevent the unauthorized use of their seals.

## **6.0 SEALING REQUIREMENTS**

### **6.1 Validity of Seal**

The words “seal” and “stamp” are interchangeable. When authenticating documents, a professional seal, full signature and date are to be applied to record and illustrate acceptance of professional responsibility for the document to which the seal is affixed. Backdating of the seal is prohibited.

All final drawings, specifications, plans, reports, and other documents pertaining to the practice of professional engineering/geoscience should be sealed by the person who prepared or directly supervised the work. Conversely, documents of a personal or non-engineering nature should not be sealed. Affixing a seal to a document does not turn it into an engineering or geoscience document.

### **6.2 Manual Seals**

The ink impression of the manual seal should be clear and legible and must be signed and dated across the seal. It is preferred that the ink used for the seal and the ink used for the signature and date are contrasting colours. The handwritten signature is trusted as a valid mark of authentication for paper documents because its inherent uniqueness makes it difficult to reproduce.

### **6.3 Electronic Images of Manual Seals**

For ease of repeatability and application, computer-generated seal application to electronic documents (i.e. CAD drawings etc.) may be desirable. The electronic reproduction of the manual seal is permitted provided the seal image is identical in size, appearance and presentation of information as the seal issued by APEGNB. The signature and date must not be part of the electronic image but rather added separately by hand.

An electronic image of a seal is not secure and is vulnerable to being modified and used by others without the responsible professional’s knowledge. It is recommended that an electronic seal image be inserted in a document immediately prior to plotting or printing the document hardcopy original, and that it be removed from a document immediately after plotting or printing is complete. The APEGNB member or licencee is responsible for the use, custody and control of the electronic seal image.

## 6.4 Digital Seals/Signatures

It is critical to the protection of the public that the professional seal applied by an APEGNB member or licensee is reliable. Therefore, digital seals/signatures using encryption technology are required for all professional work products that are finalized/issued in electronic form.

Digital certification involves secure encryption technology that identifies the document owner, and, indicates if an electronic document has been changed or altered from the original. Professional work products that are digitally authenticated must include an electronic image of the professional seal, image of the signature, and the date. However, it is the digital certificate that confirms the integrity, security and authenticity of the work product.

APEGNB has a formal agreement with the Certificate Authority, **Notarius**, to issue digital certificates. Under the agreement, the Association verifies new applications and has the authority to revoke digital certificates. The **Notarius** certificate confirms that the professional engineer/geoscientist is a member in good standing with APEGNB at the time of authentication.

Any digital signature technology other than **Notarius** must first be authorized and approved by APEGNB. Ordering information to the **Notarius** subscription service is available on the Association's website, [www.apegnb.com](http://www.apegnb.com)

## 6.5 Original Documents

Only documents that are signed and dated by hand or that have been digitally signed/certified are authenticated originals.

## 7.0 GENERAL REQUIREMENTS

### 7.1 Preliminary Documents

Generally, because there are limitations as to accuracy, preliminary documents should not be sealed. There are exceptions, however, such as when documents are issued for a specific purpose.

Preliminary documents are to be identified as "Draft" or "Preliminary". If preliminary documents are used for regulatory approval or similar, they should also be clearly marked to the level of completeness and restricted to the particular use for which the document was released such as "For Review Only", "For Permitting Only", "Not for Construction" or equivalent.

### 7.2 Final Documents

Final correspondence, drawings, specifications, plans, reports and other engineering or geoscience documents are to be sealed by the responsible professional.

### **7.3 Multiple Seals**

The application of seals to documents by both junior contributing and senior approving professionals of a given discipline is discouraged. Sealing of the documents by the individual closest to the working level is preferred.

In some cases, multiple seals are applied to documents to address the multi-discipline nature of the documents. In these cases, each responsible professional is to apply the seal complete with an indication or qualification of what discipline responsibility is implied by the seal, (e.g., civil, structural, mechanical, electrical). Like discipline qualifications may also be required (e.g., electrical power and lighting vs. process controls). Similarly, in cases where the work is carried out by multiple professions (biologists, agronomists, engineers), the responsible professional is to apply the seal identifying the portion of the work for which they were directly responsible.

### **7.4 Words In Lieu of Sealing**

When a member or licensee has not yet received a seal but has been notified of acceptance into APEGNB, then a member or licensee may apply the verbatim wording of the seal complete with the appropriate member number in lieu of the seal. This is a special case exception to the application of a professional seal. If the responsible professional is resident in another jurisdiction and has a seal issued by a recognized association then that seal may be used in place of the verbatim wording. To be considered valid, however, the wording or seal is to be signed and dated and accompanied by a copy of the signed "Acknowledgement" from APEGNB.

### **7.5 Imported Work Products and Seals of "Convenience"**

Regardless of the place of origin, all engineering and geoscience work products imported for application in New Brunswick must be sealed by a responsible professional registered with APEGNB.

An APEGNB member or licensee may be solicited by a professional from another jurisdiction to seal that individual's documents. This is acceptable provided the APEGNB member or licensee performs a thorough and documented review of the subject engineering or geoscience documents.

The review of the documents is to include an analysis of the applicable design criteria, design notes, calculations and product selections. If calculations are not available to the APEGNB member or licensee, then said member or licensee is to perform calculations to validate the work. The APEGNB member or licensee in question will be assuming full responsibility for the sealed documents including the performance of the service or product described in those documents.



## **7.6 Revisions / Addenda**

Document revisions are to be well documented to identify the boundaries of professional responsibility between original and revised versions. Changes are typically described on a revised document. A separate “summary of revisions” document may be issued as a complement to a revised document. A separate “summary of revisions” document may also be issued in lieu of issuing a revised version of a document. Regardless of the approach, all documents issued to address revisions (including addenda) are to be sealed by the responsible professional.

## **7.7 Translated Documents**

Translated documents which require engineering or geoscientific judgement or which provide engineering or geoscientific direction are to be sealed by a responsible professional. If the professional is not sufficiently proficient to take responsibility for the translation, a bilingual engineer/geoscientist competent in the subject matter area should authenticate the translated portion of the document. In these cases, each responsible professional would apply their seal with a qualification of what responsibility is implied by the seal. Therefore, the bilingual professional would seal the translated portion of the document.

## **7.8 Withdrawal of Seal**

When a responsible professional becomes aware that parameters have been changed which negate a document or if a document is otherwise being misapplied, the responsible professional may decide to no longer take responsibility for the work. This equates to the revocation of the approval that existed at the time the seal was applied and, therefore, the seal is to be removed from a document only by the responsible professional who sealed the document originally. Once removed, the responsible professional is to withdraw the original document and inform all those who may be affected by the withdrawal. A record is to be kept with the original document of any notices of withdrawal.

A seal is not to be withdrawn from a document which has been released to a client to leverage a contractual dispute with that client.

## **8.0 SPECIFIC REQUIREMENTS**

### **8.1 Correspondence**

Correspondence (letters, letter reports, memos) which require no engineering or geoscientific judgement or which provide no engineering or geoscientific direction are not required to be sealed. Conversely, correspondence which require engineering or geoscientific judgement or which provide engineering or geoscientific direction are to be sealed by the responsible professional.

## **8.2 Emails and Texts**

Communication of professional engineering and geoscientific judgement through email, texts, and other electronic forms should be followed by after-the-fact authentication in a timely manner. It is preferable, however, to produce a sealed hardcopy letter or report, and, to email this as an attachment to the recipient. Alternatively, digital certification may be employed.

## **8.3 Design Notes**

It is recommended that design notes be prepared in a format which records the names of the responsible professional, designers and checkers including the dates on which the work was performed. Typically design notes are regarded as intermediate stage documents which form the basis for final sealed documents. As such, design notes need not be sealed.

If a sealed submission of design notes to a client, employer or other is required, it is recommended that the notes be assembled and sealed on the table of contents for a specific discipline or on a “sealing or stamping sheet” which clearly identifies the content and discipline responsibility covered by the seal.

## **8.4 Reports**

Reports which require no engineering or geoscientific judgement or which provide no engineering or geoscientific direction are not required to be sealed. Conversely, final reports which require engineering or geoscientific judgement or which provide engineering or geoscientific direction are to be sealed by the responsible professional. Reports are to be sealed on the table of contents for a specific discipline or on a “sealing or stamping sheet” which clearly identifies the content and discipline responsibility covered by the seal.

## **8.5 Design Drawings**

Final drawings are to be sealed by the responsible professional in a prominent location, preferably in an allotted space in the title block or in the lower right-hand corner of the drawing.

It is difficult to seal all reproductions of drawings, therefore, it is acceptable to seal a drawing original from which reproductions are made. This original is to be clearly marked as such and archived to substantiate the work of the responsible professional should that prove necessary. The archived drawing original should bear a note to the effect “This drawing original is for record purposes and is not to be revised without the expressed approval of the responsible professional(s) under whose authority the document was sealed.” Typically, drawing originals are kept by the responsible professional, however, some clients may require that they be provided with the originals. In such cases, a copy or print of the original is to be retained by the responsible professional(s).

## **8.6 Manufacturer’s Drawings / Shop Drawings / Engineered Goods**

Typically, manufacturer’s drawings need not be sealed as the drawings are catalogue cuts or promotional literature of mass-produced items which undergo the scrutiny of regulatory and/or manufacturing authorities. However, manufacturer’s drawings of custom products or other products that alter the original design of a responsible professional are to be sealed by the manufacturer’s responsible professional.

Drawings prepared by a fabricator for products under the fabricator’s design responsibility, for example structural connections, are to be sealed by the fabricator’s responsible professional.

The responsible professional for the larger system is required to authenticate that the commercially engineered good is properly integrated into the overall system and is suitable to achieve the intended purpose.

Commercially engineered goods that are used in a way that deviates from the manufacturer’s specifications or customized engineering goods must be sealed.

## **8.7 Record and As-Built Drawings**

Drawings of record showing revisions based on information provided to the responsible professional(s) by another party who is not under the direction, control and supervision of the responsible professional and which have not been verified in detail by the responsible professional are not to be sealed. These drawings are to be revised and all changes documented as “Record information provided by another party” or equivalent. The original seal is to be replaced with a note referencing the original sealed document.

Drawings of record showing revisions based on information that has been verified in detail by the responsible professional are to be sealed. All changes made are to be marked accordingly and recorded on the drawings.

## **8.8 Specifications**

Detailed specifications are to be sealed by the responsible professional. Specifications are to be sealed on the table of contents for a specific discipline or on a “sealing or stamping sheet” which clearly identifies the content and discipline responsibility covered by the seal.

Performance specifications and related drawings are often used for design-build projects or for the procurement of a module to complement a system design. Where the documents relate specifically to engineering or geoscience, they are required to be sealed by the responsible professional(s) who prepared the documents. The seal is to be accompanied by a qualification such that it is clearly understood by all those using the documents what professional responsibilities are, and what professional responsibilities are not implied by the presence of the seal.

## **8.9 Manuals**

Final manuals prepared for technical or public safety direction and guidance of others are to be sealed by the responsible professional. Manuals are to be sealed on the table of contents for a specific discipline or on a “sealing or stamping sheet” which clearly identifies the content and discipline responsibility covered by the seal.

## **8.10 Software and Other Electronic Work Products**

When the creation or modification of software or computer programs require a seal and these programs can be represented in text or source code in a written document, the original written version of the document requires a seal.

Complex software and other electronic documents (i.e. 3D modeling, simulation software, etc.) that cannot be converted to hardcopy form, should be authenticated using digital certification.

All engineers and geoscientists are responsible to ensure that electronic/digital work products, particularly those using emergent technologies, meet the sealing requirements of the Act.

## **9.0 DOCUMENT RETENTION**

There are no requirements in the *Engineering and Geoscience Professions Act* for retaining professional documents. Document retention is therefore done at the discretion of the responsible professional based on business considerations and the timeframes that a project might have an action against it.

The New Brunswick *Limitations of Actions Act* establishes the general limitation period as the earliest of two years from the date of the discovery of the claim; and 15 years from the date of the act or omission that caused the loss or the claim. Professional liability insurers may also have specific requirements for document retention.

Documents (hard copy and electronic) that are retained should be stored in a manner that maintains their integrity and prevents unauthorized use of the documents and the professionals’ seals that appear within them.

## **10.0 LIABILITY**

### **10.1 Professional Liability**

Failure to comply with the provisions of the Act and By-laws regarding sealing of engineering and geoscience documents can lead to disciplinary action by APEGNB with sanctions which may include revocation of one’s registration.

## **10.2 Civil Liability**

When a member's or licensee's seal is affixed to a final document, full responsibility is being taken for that document. Therefore, it implies that the engineering or geoscience work contained therein is within the "area of competence" of the responsible professional and states that the work was prepared by or under that responsible professional's direct supervision.

Sealing of incomplete or inaccurate documents or documents which the responsible professional is not qualified to prepare or to review may lead to possible civil liability. This is based on misrepresentation of the nature of the work done by the responsible professional if damage is suffered by a third party as a consequence of errors in such documents and such third party had relied on the responsible professional's endorsement of the document to their detriment.

## **10.3 Criminal Liability**

Misrepresentation by a responsible professional could be found to be fraudulent and in such cases a criminal charge could be laid.