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 seal. This guideline elaborates on the basic requirements and is presented for use by the members and licensees of APEGNB. This guideline applies to all disciplines of engineering and geoscience.

2.0 ACT, BY-LAW & CODE OF ETHICS REFERENCES

The following applicable excerpts from the Act and the By-laws are offered as reference.

2.1 Engineering and Geoscience Professions Act

- 9(1) Every person registered under this Act shall have a seal of a design approved by the Council, the impression of which shall include the name of the engineer or geoscientist and the words "Registered Professional Engineer" or "Registered Professional Geoscientist" and "Province of New Brunswick".
- 9(2) Every person licenced under this Act shall have a seal of a design approved by the Council, the impression of which shall include the name of the licencee and the words "Licenced Professional Engineer" or "Licenced Professional Geoscientist" and "Province of New Brunswick".
- 9(3) Every engineer or geoscientist shall sign, date and affix a seal approved under subsections (1) or (2) to all final drawings, specifications, plans, reports and other documents pertaining to engineering works or systems or to all final geoscientific drawings, maps or reports, prepared by or under the direct supervision of the engineer or geoscientist.
- 9(4) No person shall use drawings, plans or documents pertaining to engineering works or systems in the Province except where the same have affixed thereto the seal and signature of an engineer.
- 9(5) Every engineer or geoscientist who does not sign, date, and affix a seal to all final drawings, specifications, plans, reports and other engineering or geoscientific documents prepared by or under the direct supervision of the engineer or geoscientist is subject to disciplinary proceedings for professional misconduct.

2.2 By-laws, Section 1, General

2.4.3 Upon registration a member shall be issued with a certificate and seal. It shall be the responsibility of the member to ensure the safekeeping and eventual return to the



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Association of the certificate and seal in the case of removal of the member's name from the Register. Upon removal of the name of a member from the Register the certificate and seal of said person shall immediately thereupon become the property of and vest in the Association.

3.5 Upon granting a licence to practise the Association shall issue the licencee with a seal.

2.3 By-laws, Section 2, Code of Ethics

Engineers, engineers-in-training, geoscientists, and geoscientists-in-training 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	_	The Engineering and Geoscience Professions Act of New Brunswick.
Electronic Document	_	A document produced and recorded in an electronic format, i.e. an electronic mail message, facsimile or drawing.
Final Document	_	A document that is released to a client, contractor, solicitor of services, third party, etc., as an approved engineering or geoscience document.
Hardcopy Document	_	A paper version versus an electronic copy of a document.
Licensed Professional Engineer or Geoscientist	_	A person licenced by APEGNB to practise engineering or geoscience in the Province of New Brunswick and not otherwise eligible for registration as a member due to not meeting residency, citizenship, or some other requirement.
Registered Professional Engineer or Geoscientist	_	A person holding a certificate of registration to engage in the practice of engineering or geoscience in the Province of New Brunswick.
Responsible Professional	_	A professional engineer or geoscientist registered as a member or licensee of APEGNB who prepares documents or under whose direct supervision has documents prepared.



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Software	_	Computer programs, procedures and possibly associated documentation and data pertaining to the operation of a computer system. (Reference: IEEE Std. 610.12-1990) Software is independent of the medium on which it is recorded. (Reference:
Working		ISO 9000-3) An engineering or geoscientist group in the public or private sectors
Unit		within a company or a joint venture of companies which works on a com-
		mon project or projects.

4.0 CUSTODY & CONTROL OF SEAL

In return for payment of dues the seal is issued to members or licensees by APEGNB, remains the property of APEGNB and is to be returned to APEGNB upon request.

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

5.0 GENERAL REQUIREMENTS

5.1 Validity of Seal

The words "seal" and "stamp" are interchangeable. When sealing documents, a member's or licensee's 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.

5.2 Electronic Seals

For ease of repeatability and application, computer generated seal application to electronic documents may be desirable. Signature and date application to seals via electronic means represents a further convenience. However, the security of an electronically sealed, dated and signed document is critical from a liability risk perspective. If the document is to be transmitted electronically, security as well as reliability and consistency of presentation are of concern.

Therefore, the use of computer generated seal images is permitted provided the seal image is identical in size, appearance and presentation of information as the seal issued by APEGNB. To afford responsible professionals the least liability exposure for electronic documents, it is recommended that the signature and date not be part of the computer generated image but rather that the seal be signed and dated by hand.



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The APEGNB member or licensee is responsible for the use, custody and control of the computer generated seal image. It is recommended that a computer generated 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.

Responsible professionals are cautioned to avoid leaving electronically applied seals, signatures and dates in documents to be electronically transferred unless:

- A proven security means is available which will automatically remove the seal, signature and date when any edits are made to the electronic document.
- A proven consistent and reliable means of electronic transfer is in place.

To facilitate the electronic transfer of final documents, a non-editable electronic copy of the original document can be made which includes a prescriptive notation in lieu of a seal, signature and date. The notation is to identify that the original document was properly sealed complete with signature and date on Year/Month/Day and that the original document is available for viewing if required.

5.3 Preliminary Documents

Generally, because there are limitations as to accuracy, preliminary documents need not be sealed. When it is necessary to seal preliminary documents the guideline for final documents is to be followed. Regardless of whether or not a seal is applied to preliminary documents the documents are to be identified as "preliminary" or equivalent.

5.4 Final Documents

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

5.5 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).



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5.6 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 member's or licensee's seal. If the member or licensee 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. However, to be considered valid the wording or seal is to be signed and dated and accompanied by a copy of the signed "Acknowledgement" from APEGNB.

5.7 Seals of "Convenience"

An APEGNB member or licensee may be solicited by a professional from another jurisdiction to seal that individual's documents to permit the use/application/construction of the applicable engineering or geoscience work within New Brunswick. This is acceptable provided the APEGNB member or licensee performs a thorough and documented review/check of the subject engineering or geoscience documents. The review/check 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.

5.8 Revisions

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 are to be sealed by the responsible professional(s).

When revisions are made by the responsible professional(s) who sealed the original document or the previous revision, the following is to be done:

- Manually generated documents are to indicate the date of the revisions and the responsible professional(s) is to initial the revision date.
- Computer generated documents are to be sealed by the responsible professional(s).

When revisions are made by other than the responsible professional(s) who sealed the original document or the previous revision, the following is to be done:



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— Manually and computer generated documents are to be sealed by the new responsible professional(s) with qualification(s) stating that professional responsibilities are restricted to the specific revisions and all elements affected by the specific revisions.

— Computer generated documents are to include an indication of which responsible professional(s) sealed the original documents.

For computer generated documents, it is recommended that the document include a dated record of which responsible professional(s) sealed each document revision.

5.9 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.

6.0 SPECIFIC REQUIREMENTS

6.1 Correspondence

The types of correspondence addressed below are letters and letter reports, facsimiles and electronic mail and memoranda.

6.1.1 Letters and Letter Reports

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

6.1.2 Facsimiles and Electronic Mail

Facsimiles (faxes) which require no engineering or geoscientific judgement or which provide no engineering or geoscientific direction are not required to be sealed. Conversely, hardcopy faxes



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which require engineering or geoscientific judgement or which provide engineering or geoscientific direction are to be sealed by the responsible professional(s).

Hardcopies are to be made of electronically transmitted faxes and electronic mail (e-mail) which require engineering or geoscientific judgement or which provide engineering or geoscientific direction. The hardcopies are to be sealed by the responsible professional(s) and filed for record purposes. If it is not practical to apply digital seals to such documents, electronically transmitted faxes and e-mail are to include prescriptive notation in lieu of a seal, signature and date. The notation is to identify that the original document was properly sealed complete with signature and date on Year/Month/Day and that the original document is available for viewing if required.

6.1.3 Memoranda

Memoranda (memos) which are generally used for communication within a working unit need not be sealed. Conversely, memos which are communicated outside the normal working unit which require engineering or geoscientific judgement or which provide engineering or geoscientific direction are to be sealed by the responsible professional(s).

6.2 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.

6.3 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(s). 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.



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6.4 Drawings

6.4.1 Design

Final drawings are to be sealed by the responsible professional(s) 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(s) 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(s), 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).

6.4.2 Manufacturer's

Typically shop 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(s) are to be sealed by the manufacturer's responsible professional(s). Drawings prepared by a manufacturer for products under the manufacturer's design responsibility, for example structural connections, are to be sealed by the manufacturer's responsible professional(s) except drawings used internally by the manufacturer which do not require engineering input.

6.4.3 Record

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(s) and which have not been verified in detail by the responsible professional(s) 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(s) are to be sealed. All changes made are to be marked accordingly and recorded on the drawings.



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6.5 Specifications

6.5.1 Detailed

Detailed specifications are to be sealed by the responsible professional(s). 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.

6.5.2 Performance

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(s) 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(s).

6.6 Manuals

Final manuals prepared for technical or public safety direction and guidance of others are to be sealed by the responsible professional(s). 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.

6.7 Software and Firmware

When the creation or modification of software or firmware 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.

7.0 LIABILITY

7.1 Professional

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 or licence to practise.



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7.2 Civil

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 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 his or her detriment.

7.3 Criminal

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