

1.0 OVERVIEW

A professional stamp, when affixed to a document, is intended to indicate to the public that the document has been produced by, or under the supervision and control of, a professional member of the Association of Professional Engineers and Geoscientists of BC (APEGBC), who is fully qualified by virtue of training and experience in the field of the profession contained in the document to take professional responsibility for its contents.

The purpose of this Bulletin is to provide instruction and direction to the members on the proper use of the professional seal and to reduce the overuse and misuse of the seal. These guidelines provide both answers to frequently asked questions and recommendations with examples. They should be read in conjunction with the APEGBC Bulletin on Shop Drawings regarding the use of the seal.

In addition to the traditional rubber seal issued by APEGBC to all members and licensees, APEGBC Council has approved the use of the digital signature technology available through Notarius that can be used in combination with a digitized version of the ink impression of a member's or licensee's rubber seal (electronic seal).

The digital signature technology includes a secure encryption technology which enables the recipient to verify that an engineering/geoscience document transmitted electronically represents the original content of the signing member. For additional background on the specific technology endorsed by APEGBC Council, please refer to the article published in the September/October 2007 issue of Innovation entitled "Digital Signature Electronic Seal Technology".

2.0 GENERAL

Following registration, each Professional Engineer or Professional Geoscientist is issued a stamp or seal through the APEGBC. The terms "seal" and "stamp" are interchangeable.

Engineers & Geoscientists Act (As amended May 2008)
Section 20(6), (7) and (9)

- (6) On receipt of a certificate of registration or a certificate of licence, a professional engineer
 - (a) is entitled to use the title "professional engineer" or an abbreviation of that title approved by the council, and
 - (b) must be provided with a seal or stamp by the association, bearing the engineer's name, the words "Professional Engineer, Province of British Columbia" and other designation required by the bylaws.

- (7) On receipt of a certificate of registration or a certificate of licence, a professional geoscientist
 - (a) is entitled to use the title "professional geoscientist" or an abbreviation of that title approved by the council, and
 - (b) must be provided with a seal or stamp by the association, bearing the geoscientist's name, the words "Professional Geoscientist, Province of British Columbia" and other designation required by the bylaws.
- (8) On issuing a certificate of limited licence, the association must provide the licensee with a seal or stamp, bearing the licensee's name, the words "Limited Licensee" and any other information required by the bylaws.
- (9) A member or licensee receiving a seal or stamp under this section must use it, with signature and date, to seal or stamp estimates, specifications, reports, documents, plans or things that have been prepared and delivered by the member or licensee in the member's or licensee's professional capacity or that have been prepared and delivered under the member's or licensee's direct supervision.

3.0 DEFINITIONS

Documentation:	To include, but not be limited to, design briefs, drawings, plans, specifications, estimates, reports and letter reports on technical subjects.
Digital Signature:	Information in a digital form that a member or licensee, as authorized by APEGBC, has created or adopted that consists of one or more letters, characters, numbers or other symbols in digital form incorporated into, attached to, or associated with an electronic document and that is used to represent the equivalent of a paper signature.
Electronic Seal:	A digital version of a member's or licensee's seal which represents a true replica of the ink impression of the rubber stamp issued by APEGBC to the member or licensee with no material variations in size, format and wording from the ink impression of the member's or licensee's seal. This type of seal can only be used in conjunction with the digital signature technology referred to in Section 1.0 of these Guidelines.
Engineer:	Professional Engineer (P.Eng.)
Engineer of Record (EOR):	The Professional Engineer with the lowest level of overall and total responsibility for the documentation.
Geoscientist:	Professional Geoscientist (P.Geo.)
Geoscientist of Record (GOR):	The Professional Geoscientist with the lowest level of overall and total responsibility for the documentation.
Original:	Master copy of documentation used to create additional copies for distribution.

Qualify the Seal:	To describe the specific extent of responsibility for design usually limited to a single discipline.
Specifications:	The technical (engineering) portions of the document.

4.0 RULES FOR THE USE OF THE SEAL

4.1 General

The seal shall always be signed and dated.

The seal shall be applied in a prominent location.

The terms “seal” and “stamp” are interchangeable.

4.2 Final Documents

4.2.1 Drawings

➤ **Covering a single discipline of engineering**

For drawings covering a single discipline of engineering or geoscience, sealing should be carried out by the engineer or geoscientist most directly responsible for preparing the design and drawing. Where the single discipline requires speciality expertise/design by more than one Engineer of Record (EOR) or Geoscientist of Record (GOR), each EOR/GOR shall apply their seals which shall be qualified to outline the extent of their responsibility.

➤ **Covering more than one discipline of engineering and geoscience**

Sealing of drawings containing information from multiple disciplines of engineering or geoscience shall be by the EOR/GOR for each discipline involved and the seals shall be qualified to outline the extent of responsibility.

➤ **General Concept or Layout Drawings**

Sealing of diagrammatic or general drawings should be by the EOR/GOR.

4.2.2 Specifications

➤ Sealing of engineering or geoscience specifications shall be by the EOR/GOR who is directly responsible for the specifications. Since some documents contain non-technical information regarding the product or service being presented, which has not been prepared by the EOR/GOR) it is recommended that only the technical portion of such documents be sealed. However, where such documents are prepared in total by the engineer or geoscientist, that person is professionally accountable for the accuracy of the entire document and not just the technical portion.

➤ If several specifications of different engineering or geoscience disciplines are bound into one cover, the EOR/GOR for a specific discipline may seal the document and qualify the seal to outline the extent of responsibility.

4.2.3 Reports, Letters, Estimates and Certificates

- Reports, estimates and letter reports providing engineering or geoscience information or direction shall be sealed by the EOR/GOR.
- Letters and certificates specifically required to be sealed by a regulatory authority, or client for contract purposes, or by law shall be sealed by the EOR/GOR.

4.3 Preliminary Documents

In general, preliminary documents should **NOT** be sealed. Where sealing such documents is required to meet the requirements of regulatory bodies, these documents should be clearly marked **PRELIMINARY** or **NOT FOR CONSTRUCTION**.

4.4 Revisions to Documents

- Revisions to a document issued by, or under the direct supervision and control of, the same professional member(s) responsible for the original document should be clearly identified as revisions to the original document. The original professional stamp(s) and permit stamp should be re-dated to indicate the date of the revision and initialled by the respective professional member(s).
- When revisions to a document are made by someone other than the professional member(s) responsible for the content of the original document, the revisions only, including all elements of the document which are affected by the revisions, should be stamped, signed and dated by the professional member(s) under whose direct supervision and control the revisions were made. Care should be taken in documenting the revisions to clearly identify the boundary of professional responsibility between the original and revised documents.

5.0 A COMMENTARY ON STAMPING AND SEALING

Many aspects of the use and abuse of the seal have been examined to clarify the concerns of members. Proper use of the seal can be defined by providing answers to five questions:

- When should the seal be used?
- When should the seal not be used?
- Who should use the seal?
- Where and how should the seal be used?
- Is seal duplication a danger?

5.1 When Should the Seal Be Used?

The Act is specific: **SEALING IS NOT OPTIONAL**. Section 20(9) of the *Engineers and Geoscientists Act* states:

“A member or licensee receiving a seal or stamp under this section must use it, with signature and date, to seal or stamp estimates, specifications, reports, documents, plans or things that have been prepared and delivered by the member or licensee in the member's or licensee's professional capacity or that

have been prepared and delivered under the member's or licensee's direct supervision."

The wording in the Act is explicit and specific with the words "... **must use it, with signature and date, ...**".

The Association's support of the correct use of the Seal is based on:

The Act specifically directs under Section 20(9) that, "*A member or licensee receiving a seal or stamp under this section must use it, with signature and date, to seal or stamp ...*". **FAILURE TO SEAL IS A BREACH OF THE *ENGINEERS AND GEOSCIENTISTS ACT*.**

Public Relations and Professional Recognition. Documentation including drawings, specifications, reports or other documents which become visible to the public may be stamped or sealed. A greater use of the seal benefits the Association and its members by making the public aware of the role of the professional engineer and geoscientist in the community. In addition, personal recognition of the work of individual engineers or geoscientists is most desirable. However, it should be noted that the aspect of greater visibility of the engineering profession should not be a driving force to overuse or misuse the seal.

Legal Implications. The legal liability of an engineer or geoscientist is not dependent on whether or not the engineer or geoscientist seals documentation. If engineers or geoscientists (or, for that matter, any individuals) are negligent, they may have to defend themselves if litigation results. The seal only makes the responsible EOR or GOR more easily identifiable. Notwithstanding the above, as the *Engineers and Geoscientists Act* directs, engineers and geoscientists are **required** to use the seal on work prepared in a professional capacity or under their direct supervision.

Occasionally, an engineer or geoscientist may be called on to act for a client in cooperation with a company providing sub-professional specialist services such as shop drawing preparation. If the engineer or geoscientist acts as the senior technical advisor and is directly responsible for the initial design, the engineer or geoscientist shall stamp plans and other documents. A test of "direct responsibility" is the ability of that engineer or geoscientist to alter or revise the original design. Engineers or geoscientists shall indicate the particular focus of their design and qualify the seal as necessary.

From time to time, an engineer may be asked to seal an engineering design or work prepared by a professional engineer registered in another jurisdiction. The seal is required to permit the use/application/construction of the engineering design or work within British Columbia. In such cases, the engineer must carry out a thorough and documented review/check of the engineering design or product sufficient to merit the application of the engineer's seal to the pertinent documents. Such a review/check would include consideration of all design assumptions and parameters and checking of the design calculations and selections, etc. Subsequent to the application of the seal, the engineer assumes full responsibility for the sealed documents and for the performance of the service or product described in those documents. While this situation is directed to engineers, the

views expressed above would apply equally to geoscientists sealing geoscience work prepared by others.

Frequently, a building classified under Part 9 of the *B.C. Building Code* or the *Vancouver Building By-law* must have certain structural components designed under Part 4. Part 4 requires that the design of structural components be undertaken by a qualified professional engineer. It is important that the structural component be designed to carry the applied loading and that the load path and load transfer be checked through to the foundation.

5.2 When Should the Seal Not Be Used?

Preliminary documents should generally not be stamped. If a regulatory authority requires a stamped preliminary design before issuing a permit, it is most important that the design be clearly marked **PRELIMINARY** or **NOT FOR CONSTRUCTION**.

Internal documentation within the engineer's or geoscientist's office need not be stamped.

One obvious example in which the seal must not be used is when engineers or geoscientists are requested to "sell" their seals by sealing the work of others not under their direct supervision. Such action by an engineer or geoscientist would be irresponsible. They would be sealing work for which they are not truly responsible and therefore would be in violation of Section 20(9) of the Act.

If, for some reason, an original or reproducible plan or drawing is requested by a client or by a regulatory authority, this should definitely not be sealed. The Association recommends sealing of originals should be avoided unless there are established and written company procedures for microfilming (or recording on non-erasable electronic media) the master and subsequent revisions of the document. It recommends that a fresh stamp on a drawing, specification or other documents complete with signature and date provides the greatest degree of security, authority and definition of responsibility.

Documents which are incidental to an engineering or geoscience project need not be sealed.

5.3 Who Should Use the Seal?

For drawings covering a single discipline of engineering or geoscience, sealing should be carried out by the engineer or geoscientist most directly responsible for preparing the design and drawing. Where the single discipline requires speciality expertise/design by more than one engineer or geoscientist, e.g., computer system design and general electrical design of building services, such seals should be applied and qualified as to what is covered by each seal.

For drawings covering more than one discipline of engineering or geoscience, sealing should be by the EOR/GOR in each discipline for which there is specific design information on the drawing. Each seal should be correctly qualified by the engineer or geoscientist involved. For example, the structural engineer should qualify the structural engineer's seal with a statement such as "For Structural Aspects Only".

For drawings covering the concept and general arrangement of the project, sealing, if required, should be by the engineer or geoscientist of responsibility.

For specifications, sealing should be by the EOR/GOR who drew up the specification or, if the document is produced by a non-professional, by the EOR/GOR directly responsible for the specification. If several specifications are bound into one cover, the EOR/GOR should seal the document for the specific discipline and qualify the seal accordingly.

For reports, sealing should be by the EOR/GOR and not the junior person who may have coordinated the project for the author. If several engineering or geoscience disciplines are bound into one cover, the EOR/GOR should seal the document for the specific discipline and qualify the seal accordingly.

5.4 Where and How Should the Seal Be Used?

The seal should be applied in a prominent location on all documents to allow maximum exposure of the seal for easy identification and for “Recognition of the Profession” purposes.

The seal must always be signed and dated. Section 20(9) of the Act specifically requires signature and date. Occasionally, documents are revised without knowledge or approval of the sealing EOR/GOR. The engineer or geoscientist may be employed on a new project or may have left the employment of the particular company. Dating, sealing and identifying the extent of the revision defines the responsibility of the revising EOR/GOR.

For the original seal, when applied to hardcopy, to be distinguished and protected from mechanical reproduction, it is recommended that the application of the seal and signature/date should use different colour ink combinations, eg., seal applied with blue ink and signature/date applied with red ink.

The Association recommends the stamp or seal should be placed:

- For drawings, in the allotted space in the title block or in the lower right corner of the plan;
- For specifications, on the first page or cover sheet of the sections to be sealed. If a seal is to be applied to the overall specification, the seal should appear on the cover sheet;
- For reports, next to the title of author or signature in the report, whether the title or signature appears at the beginning or at the end of the report;
- For the electronic transmission of engineering/geoscience documents, APEGBC Council has approved a digital signature technology for use with the digital version of the ink impression of the rubber seal issued to the member or licensee by APEGBC. This technology includes a secure encryption application which enables the receiver of the document to verify that an engineering/geoscience document transmitted electronically represents the original content of the signing engineer/geoscientist. For the electronic transmission of documents without the use of the APEGBC endorsed secure digital signature technology, the only safe and practical method of use of a seal in this

instance is for the engineer/geoscientist to seal the hardcopy of the documents transmitted electronically so there is confirmation available of the original content sent by electronic means.

5.5 Is Seal Duplication a Danger?

While difficult to standardize the application of the symbol which proclaims “I take professional responsibility for ...”, the following alternatives have been classified together with a preferred means of asserting the engineer’s or geoscientist’s acceptance of responsibility:

- “Stick-on” stamps are clearly undesirable because of their easy removal and application;
- Photocopies and other reproductions of the seal or stamp are not recommended. Reproductions without dating and signing may be misleading and are contrary to the Act. The Association recommends against reproduction of the stamp;
- Sealing of original drawings is practised by some organizations. It is important that such companies have a system of firm internal discipline, file originals with care, and ensure that the correct revision procedure is followed. The common practice is then to issue sealed copies of the drawings and reports as necessary whether these are for a regulatory authority, or for a client for contract purposes, or by law. The security and authority of the reproduced seal diminish when the internal discipline of filing, revising and reproducing is less than perfect. The Association’s recommended policy is not to seal originals.
- APEGBC recommends against the insertion of a scanned seal and signature onto an engineering/geoscience document without the use of the APEGBC endorsed technology referenced in Section 1.0 of these Guidelines. Without the use of secure technology, the recipient of the document is not provided with assurance that the seal was applied by the originating member or licensee. Additionally, if changes to the electronically transmitted engineering/geoscience document are made after the seal was inserted, it may be virtually impossible to prove that the changes were not made by the originating member or licensee.