

RULES AND REGULATIONS

Title 49—PROFESSIONAL AND VOCATIONAL STANDARDS

STATE REGISTRATION BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS AND GEOLOGISTS

[49 PA. CODE CH. 37]

Digital Signature and Seal

[52 Pa.B. 7709]

[Saturday, December 17, 2022]

The State Registration Board for Professional Engineers, Land Surveyors and Geologists (Board) amends §§ 37.57—37.59 (relating to registration number; seal; and use of seal) and adds §§ 37.56a and 37.60 (relating to definitions; and digital signature and seal), to read as set forth in Annex A.

Effective Date

This final-form rulemaking will be effective upon publication in the *Pennsylvania Bulletin*.

Statutory Authority

Section 4(l) of the Engineer, Land Surveyor and Geologist Registration Law (act) (63 P.S. § 151(l)) authorizes the Board to promulgate regulations, not inconsistent with the act, that it deems necessary and proper to carry into effect the powers conferred by the act. Further, section 7 of the act (63 P.S. § 154) requires engineers, land surveyors and geologists registered under the act to obtain and utilize a seal of a design authorized by the Board.

Background and Need for this Final-Form Rulemaking

Section 7(a) of the act requires each licensee to obtain a seal of a design authorized by the Board and to stamp all work product issued by the licensee with that seal. The Board previously promulgated §§ 37.58 and 37.59 to set standards for licensee use of the seal, including the requirement in § 37.59(2) that the licensee also sign the document. However, these regulations were developed when the seal was applied with a metal embosser or a rubber stamp; it was not contemplated that a seal or signature could be placed digitally through the personal use of computer technology by placing an image of the seal or signature on a document and did not contemplate that a document could be signed digitally other than by placing an image of the signature on the document. With this technology now available, the National Council of Examiners for Engineering and Surveying (NCEES), the National organization of engineering and land surveying licensing boards, has addressed its use in paragraph H of section 240.20 (relating to seal on documents) of its Model Rules at https://ncees.org/wp-content/uploads/Model_Rules_2021_web.pdf. Additionally, the Uniform Electronic Transactions Act (UETA) has been adopted by many states, including this Commonwealth. In this Commonwealth, UETA was enacted as the Electronic Transactions Act (73 P.S. §§ 2260.101—2260.5101). The Board adopts definitions and provisions consistent with the

Electronic Transactions Act for these regulations. Other State agencies must comply with the Pennsylvania Electronic Transactions Act under section 303(a) of the Electronic Transactions Act (73 P.S. § 2260.303(a)) in that they may not deny the legal effect or enforceability of a seal solely because it is in electronic form.

This final-form rulemaking allows licensees to use digital signatures and seals to increase electronic commerce and electronic communications, increase electronic filing of documents, help establish uniformity of rules and standards regarding the authentication and integrity of electronic records and promote public confidence in the integrity and reliability of electronic records. The Board believes that it is appropriate to amend its regulations to make it clear that licensees are permitted to take advantage of this technology and to set standards for its use.

Summary of Comments to the Proposed Rulemaking and the Board's Response

Notice of proposed rulemaking was published at 50 Pa.B. 4245 (August 22, 2020). Publication was followed by a 30-day public comment period. The Board did not receive any comments from the public, the Senate Consumer Protection and Professional Licensure Committee (SCP/PLC), or the House Professional Licensure Committee (HPLC). The Board received one comment from the public. The Independent Regulatory Review Commission (IRRC) reviewed the proposed rulemaking and provided comments and recommendations.

Comments from the public

There was one comment received from the public, which expressed support for the regulation amendments and noted that registrants "have been formalizing their work with electronic seals and signatures for the past lustrum."

Comments from IRRC

First, IRRC asked the Board to ensure that this final-form rulemaking is as uniform as possible with the similar final-form rulemakings submitted by the Landscape Architect Board (16A-6112) and the State Architects Licensure Board (Architect Board) (16A-4111). The Landscape Architect Board and the Architect Board share the same board counsel as the Board, and each board meets on a regular basis. The boards have been reviewing this digital signature and seal regulation frequently to ensure that each board's regulation is consistent with the others to the extent possible, given the differing statutory and regulatory framework. The Board has reviewed and compared this final-form rulemaking with the final-form rulemakings of the other boards and finds this final-form rulemaking to be consistent and clear for the regulated community.

In both this final-form rulemaking and the Architect Board's final-form rulemaking, IRRC questioned how an electronic sound or process could satisfy the requirements of the proposed digital seal requirements. In reviewing this question, and in an effort to keep the regulations among the boards consistent, the Board determines that it should revise the definition of "digital seal." The Board agrees that an electronic sound or process does not satisfy the requirements of § 37.58. As such, the Board amends the definition of "digital seal" by changing "electronic sound, symbol or process" to "electronic image" to ensure that a digital seal includes an image of the licensee's name and license number and the legend "Registered Professional Engineer," "Registered Professional Land Surveyor," or "Registered Professional Geologist" together with a reference to the Commonwealth of Pennsylvania. In accordance with IRRC's suggestion to ensure that the regulations are as uniform as possible, the Board reviewed and compared the Architect Board final-form rulemaking relating to loss or theft of seals. This Board does not have existing regulations relating to loss or theft of seals. Adding a new section to this final-form rulemaking package would not be appropriate because it would go beyond the scope of the proposed rulemaking and would require more discussion, consideration and stakeholder outreach than the final-form rulemaking

process allows. If the Board determines that a regulation is needed, it will propose it in a separate rulemaking.

In the Architect Board's final-form rulemaking, IRRC stated that the regulation requires licensees to obtain a seal authorized by the Architect Board and asked if the Architect Board's intent was for the digital seal design and the Board-approved seal to be identical. Like all seals used by licensees, the digital seal must be identical to the design approved by the Board. To clarify this requirement, the Board amends § 37.58(a) by specifying that the seal design must be identical to the design authorized by the Board.

Next, IRRC asked for clarification within the definition "digital seal," wherein the Board states that the digital seal must be adopted by "a person with the intent to seal the document." IRRC recommended that the Board change "person" to "licensee" within the definitions of "digital seal" and "digital signature." IRRC also recommended that the definition of "sole control" and "verification" be changed to include "seal and signature" to match the terms used in § 37.60(a) and (b). The Board agrees with IRRC's recommendations and makes the suggested changes. The Board also amends § 37.58(d) to clarify that a registrant may use metal and digital seals.

IRRC stated that § 37.59(2) is amended to allow all the use of digital seals on all subsequent pages of plans and asked what the Board's intent is with this amendment. Upon consideration of IRRC's comment, the Board determined that further clarification was necessary. The Board's intent is to require a licensee to use a traditional metal seal or a digital seal on the first page of documents. Accordingly, the Board amends § 37.59(2) to require the seal on the first page of final or complete documents to be impressed, stamped or digital. Section 37.59(2) provides for either facsimile or digital seals on subsequent pages of documents. Thus, a digital seal may appear on the first page and on all subsequent pages. In the alternative, a traditional seal may be used on the first page and either a facsimile or a digital seal may be used on the subsequent pages of documents.

In § 37.60(a) and (b), the Board replaces "drawings, reports and documents" with the term "documents." The Board's regulations already define the term "documents" in § 37.1 (relating to definitions) to include drawings and reports; therefore, there is no need to include those terms. IRRC also commented that NCEES Model Rule 240.20(H) contains the following sentence: "A digital signature that uses a process approved by the board will be presumed to meet the criteria set forth in section H above." IRRC asked why the Board omitted this provision. The process outlined in §§ 37.58 through 37.60 contains the specific requirements for the digital signatures and seals authentication process. Further, under § 37.81(10) (relating to misconduct), a licensee who fails to adhere to §§ 37.58 through 37.60 is subject to discipline. Given these provisions, the Board does not include this sentence because it does not think it is necessary to reiterate that §§ 37.58 through 37.60 must be followed to meet the criteria for a valid digital signature and seal. IRRC also asked the Board why digital seal was not included in § 37.60(c) and suggested that the Board include digital seals to the alteration provisions. The Board agrees with IRRC and makes this amendment. The Board also clarifies that any alterations to a file will cause both the signature and seal to be voided.

IRRC asked that the numbers provided in questions 15, 16 and 19 of the RAF be updated in the final-form RAF. Those numbers are updated.

IRRC commented that the preamble cites to the Digital Signature and Electronic Authentication Law, which was a bill that was not enacted. The reference to this bill is not included in this final-form rulemaking preamble.

Fiscal Impact and Paperwork Requirements

Because the use of digital signatures and seals are voluntary rather than mandatory, this final-form rulemaking will not have a fiscal impact on, or create additional paperwork for, the regulated

community, the general public, or the Commonwealth and its political subdivisions that choose to continue utilizing a traditional seal and stamp. Licensees who decide to use digital seals and signatures will be required to utilize appropriate security software that meets the requirements for digital seals and signatures as set forth in this final-form rulemaking in §§ 37.58 through 37.60. This software is available from a variety of vendors. Costs will vary from one vendor to another, and costs will also vary depending on the number of individuals who will use a digital seal and signature within a firm. For example, according to DocuSign and Adobe, sole proprietor firms using digital seals and signatures and purchasing a user license will likely select a plan where the cost for a single user license is \$15 per month or \$165 per year, which allows 1 month at no charge. For the same vendors, firms with more than ten licensees using digital seals and signatures and purchasing user licenses for their licensees may be able to negotiate a lower fee, depending on the number of licensees, with a higher number of licensees paying a lower fee. Under both plans offered by this vendor, there is no limit on the number of digital seals or signatures that a licensee may use. The Board also anticipates that as the number of users of digital seals and signatures increases over time, it is likely that the costs of purchasing digital seal and signature technology will decrease.

However, the costs to those utilizing digital seals and signatures will be outweighed by the savings realized by individuals continuing to use a "wet signature." According to Cadalyst (a reviewer of computer aided design software and hardware), the architecture, engineering and construction industry spends an estimated \$500 million or more each year moving plans from one discipline to another by way of courier services such as FedEx and UPS. One vendor of digital seals estimates that the average cost of toner, ink and paper costs \$.03 per page, and further states that costs are even greater for firms and organizations with multiple locations or field staff that need to submit formal reports or contracts. According to Oasis Systems (a provider of information technology, systems engineering, professional services and enterprise applications to Federal agencies), the average paper document is copied 9 times to 11 times at a cost of approximately \$18 and filed at a cost of approximately \$20, plus the added cost of storage, media, space, postage and distribution. Pitney Bowes estimates that the average cost of Fortune-500 paper documents is \$10 per document. Pfizer estimates the cost of one "wet signature" at \$30, including the time to track down the signer, plus storage and scanning costs.

Sunset Date

The Board continuously monitors the effectiveness of its regulations. Therefore, no sunset date has been assigned.

Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on August 11, 2020, the Board submitted a copy of the notice of proposed rulemaking, published at 50 Pa.B. 4245 and a copy of a Regulatory Analysis form to IRRC and to the Chairpersons of the HPLC and the SCP/PLC.

Under section 5(c) of the Regulatory Review Act, IRRC, the HPLC and the SCP/PLC were provided copies of the comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Board has considered all comments from IRRC and the public. The Board received no comments from HPLC or SCP/PLC.

Under section 5.1(g)(3) and (j.2) of the Regulatory Review Act (71 P.S. § 745.5a(g)(3) and (j.2)), on October 19, 2022, the final-form rulemaking was deemed approved by the HPLC and the SCP/PLC. Under section 5.1(e) of the Regulatory Review Act, IRRC met on October 20, 2022, and approved the final-form rulemaking.

Additional Information

Additional information may be obtained by contacting Jeannie Bronshtein, Administrator, State Registration Board for Professional Engineers, Land Surveyors and Geologists, P.O. Box 2649, Harrisburg, PA 17105-2649, ST-ENGINEER@PA.GOV.

Findings

The Board finds that:

(1) Public notice of the proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §§ 1201 and 1202), referred to as the Commonwealth Documents Law and the regulations promulgated thereunder, 1 Pa. Code §§ 7.1 and 7.2 (relating to notice of proposed rulemaking required; and adoption of regulations).

(2) A public comment period was provided as required by law and all comments were considered in drafting this final-form rulemaking.

(3) This final-form rulemaking does not include any amendments that would enlarge the scope of the proposed rulemaking published at 50 Pa.B. 4245.

(4) This final-form rulemaking is necessary and appropriate for administration and enforcement of the act.

Order

The Board orders that:

(a) The regulations of the Board, 49 Pa. Code Chapter 37, are amended by amending §§ 37.57—37.59 and adding §§ 37.56a and 37.60 to read as set forth in Annex A.

(b) The Board shall submit this final-form rulemaking to the Office of General Counsel and to the Office of Attorney General as required by law.

(c) The Board shall submit this final-form rulemaking to IRRC, the HPLC and the SCP/PLC for approval as required by law.

(d) The Board shall certify this final-form rulemaking and deposit it with the Legislative Reference Bureau as required by law.

(e) This final-form rulemaking shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

JAMES SZALANKIEWICZ, PE, PLS,
President

(Editor's Note: See 52 Pa.B. 6941 (November 5, 2022) for IRRC's approval order.)

Fiscal Note: 16A-4712. No fiscal impact; (8) recommends adoption.

Annex A

TITLE 49. PROFESSIONAL AND VOCATIONAL STANDARDS

PART I. DEPARTMENT OF STATE

**Subpart A. PROFESSIONAL AND
OCCUPATIONAL AFFAIRS**

**CHAPTER 37. STATE REGISTRATION BOARD
FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS AND
GEOLOGISTS**

REGISTRATION NUMBER AND SEAL

§ 37.56a. Definitions.

The following words and terms, when used in this section and §§ 37.59 and 37.60 (relating to use of seal; and digital signature and seal), have the following meanings, unless the context clearly indicates otherwise:

Digital seal—An electronic image attached to or logically associated with a document and executed or adopted by a licensee with the intent to seal the document.

Digital signature—An electronic sound, symbol or process attached to or logically associated with a document and executed or adopted by a licensee with the intent to sign the document.

Electronic—Relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic or similar capabilities.

Handwritten signature—The scripted name or legal mark of an individual, written by that individual and executed or adopted with the present intention to authenticate a writing in a permanent form.

Sole control—A situation in which only the registrant decides when and where the signature and seal are applied.

Verification—Confirmation that a signature and seal are actually from the registrant whose name and registration number appears on the document.

§ 37.57. Registration number.

Upon approval of an application for registration by the Board, each registrant will be assigned a unique registration number.

§ 37.58. Seal.

(a) A registrant shall obtain, at the registrant's own expense, a seal in the identical design authorized by the Board. The following are Board authorized seals for "Registered Professional Engineer" (Design A), "Registered Professional Land Surveyor" (Design B) and "Registered Professional Geologist" (Design C):

(b) The seal shall contain the legend "Registered Professional Engineer," "Registered Professional Land Surveyor" or "Registered Professional Geologist" and the registrant's name and registration number together with a reference to the Commonwealth of Pennsylvania.

(c) The seal shall be 1 3/4 inch in diameter. The diameter of a pocket seal may be reduced to 1 1/2 inch if the design is in the same relative proportions in subsection (a).

(d) A registrant may use a metal seal, rubber stamp, computer image which is a facsimile of the seal or digital seal, if the registrant first obtains a seal in accordance with this section.

§ 37.59. Use of seal.

The following rules govern the proper use of a registrant's seal:

(1) A registrant may use the registrant's seal and signature only when the work being sealed and signed was prepared by the registrant or under the registrant's complete direction and control.

(2) When a registrant issues final or complete documents to a client for the client's records, or when a registrant submits final or complete documents to public or governmental agencies for final review, the seal and signature of the registrant who prepared or who directed and controlled the preparation of the documents, along with the date of issuance, shall be prominently displayed on the first page of all documents. The seal on the first page of a final or complete document shall be impressed, stamped or digital. Facsimile or digital seals shall appear on all subsequent pages of plans or plats.

(3) When multiple registrants prepare or direct and control the preparation of documents, each registrant's seal and signature shall appear on the first page of the documents, or on the first page of the identifiable portion or section of the documents, which were prepared or directed and controlled by that registrant, if the respective registrants' direction and control can be reasonably segregated.

(4) When a registrant's signature is applied, it shall be applied near or across the seal, but not in a location that obliterates the registration number.

(5) A registrant may not affix or permit a seal and signature to be applied to a document after the expiration of the registrant's licensure status, or for the purpose of aiding or abetting another person to evade or attempt to evade a provision of the act or this chapter.

(6) In the case of a temporary permit issued to an engineering, land surveying or geology registrant of another state, the registrant shall use the seal of the registrant's home state and shall affix his signature and a copy of the temporary permit to work performed in this Commonwealth.

(7) When a registrant seals and signs engineering, surveying or geology documents, one of the following methods must be used:

(i) Physical placement of a seal and a handwritten signature in permanent ink containing the name of the registrant.

(ii) Digital placement of a seal and a handwritten signature in permanent ink containing the name of the registrant.

(iii) Digital placement of a seal and a digital signature containing the name of the registrant.

§ 37.60. Digital signature and seal.

(a) Documents that are signed using a digital signature must have an electronic authentication process attached to or logically associated with the electronic document. The digital signature must be:

(1) Unique to the registrant.

(2) Capable of verification.

(3) Under the sole control of the registrant.

(4) Linked to a document in such a manner that the digital signature is invalidated if any data in the document is changed.

(b) Documents that are sealed with a digital seal must have an electronic authentication process attached to or logically associated with the electronic document. The digital seal must be:

(1) Unique to the licensee.

(2) Capable of verification.

(3) Under the sole control of the licensee.

(4) Linked to a document in such a manner that the digital seal is invalidated if any data in the document is changed.

(c) A hard copy printed from the transmitted electronic file shall bear the facsimile of the digital signature and seal and be a confirmation that the electronic file was not altered after the initial digital signing of the file. Alterations to the file shall cause the signature and seal to be voided.

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