
THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 2101 Session of
2019

INTRODUCED BY EMRICK, GILLEN, JOZWIAK, MILLARD, PICKETT AND
READSHAW, DECEMBER 2, 2019

REFERRED TO COMMITTEE ON PROFESSIONAL LICENSURE,
DECEMBER 2, 2019

AN ACT

1 Amending the act of May 23, 1945 (P.L.913, No.367), entitled "An
2 act relating to and regulating the practice of the profession
3 of engineering, including civil engineering, mechanical
4 engineering, electrical engineering, mining engineering and
5 chemical engineering, the profession of land surveying and
6 the profession of geology and constituent parts and
7 combinations thereof as herein defined; providing for the
8 licensing and registration of persons practicing said
9 profession, and the certification of engineers-in-training
10 and surveyors-in-training, and the suspension and revocation
11 of said licenses, registrations and certifications for
12 violation of this act; prescribing the powers and duties of
13 the State Registration Board for Professional Engineers, Land
14 Surveyors and Geologists, the Department of State and the
15 courts; prescribing penalties; and repealing existing laws,"
16 further providing for definitions, for continuing
17 professional competency requirements and for exemption from
18 licensure and registration.

19 The General Assembly of the Commonwealth of Pennsylvania
20 hereby enacts as follows:

21 Section 1. Section 2(a)(1), (c), (d) and (j) of the act of
22 May 23, 1945 (P.L.913, No.367), known as the Engineer, Land
23 Surveyor and Geologist Registration Law, are amended and the
24 section is amended by adding subsections to read:

25 Section 2. Definitions.--As used in this act--

1 (a) (1) "Practice of Engineering" shall mean the
2 application of the mathematical and physical sciences for the
3 design or analysis of public or private buildings, structures,
4 machines, equipment, processes, works or engineering systems,
5 and the consultation, investigation, evaluation[, engineering]
6 or surveys, construction management, modification and
7 alteration, planning and inspection in connection therewith, the
8 performance of the foregoing acts and services being prohibited
9 to persons who are not licensed under this act as professional
10 engineers unless exempt under other provisions of this act. The
11 term includes the performance of engineering land surveys.

12 * * *

13 (c) ["Engineer-in-Training"] "Engineer Intern," formerly
14 known as "engineer-in-training," means a candidate for licensure
15 as a professional engineer, who has been granted a certificate
16 as an engineer intern or the predecessor title of engineer-in-
17 training after successfully passing the prescribed written
18 examination in fundamental engineering subjects, and who shall
19 be eligible upon the completion of the requisite years of
20 experience in engineering, under the supervision of a
21 professional engineer, or similarly qualified engineer, for the
22 final examination prescribed for licensure as a professional
23 engineer.

24 (d) "Practice of Land Surveying" [means the practice of that
25 branch of the profession of engineering which involves the]
26 shall mean the authoritative acts of location, relocation,
27 establishment, reestablishment or retracement of any property
28 line or boundary of any parcel of land or any road right-of-way,
29 easement or alignment; the use of principles of land surveying,
30 determination of the position of any structure or permanently

1 installed equipment in relation to monuments or reference
2 points, determination of the position of any monument or
3 reference point which marks a property line boundary, or corner
4 setting, resetting or replacing any such monument or individual
5 point including the writing of deed descriptions; the
6 performance of engineering land surveys; procuring or offering
7 to procure land surveying work for himself or others; managing
8 or conducting as managers, proprietors or agent any place of
9 business from which land surveying work is solicited, performed,
10 or practiced; the performance of the foregoing acts and services
11 being prohibited to persons who are not granted certificates of
12 registration under this act as a professional land surveyor
13 unless exempt under other provisions of this act. The term also:

14 (1) Includes, but is not limited to, the following
15 activities:

16 (i) The creation of maps and geospatial databases
17 representing authoritative locations for boundaries, the
18 location of fixed works or topography. This includes maps and
19 geospatial databases prepared by a person or government agency
20 if the data is provided to the public as a survey product.

21 (ii) Original data acquisition, or the resolution of
22 conflicts between multiple data sources, if used for the
23 authoritative location of features within the following data
24 themes:

25 (A) geodetic control;

26 (B) orthoimagery;

27 (C) elevation and hydrographic;

28 (D) fixed works;

29 (E) private and public boundaries; and

30 (F) cadastral information.

1 (iii) Certification of positional accuracy of maps or
2 measured survey data.

3 (iv) Authoritative adjustment or interpretation of raw
4 survey data.

5 (v) GIS-based parcel or cadastral mapping used for
6 authoritative boundary definition purposes wherein land title or
7 development rights for individual parcels are or may be
8 affected.

9 (vi) Interpretation of maps, deeds and other land title
10 documents to resolve conflicting data elements with the intent
11 of being authoritative.

12 (vii) Acquisition of field data required to authoritatively
13 position fixed works or cadastral data relative to geodetic
14 control.

15 (viii) Analysis, adjustment or transformation of cadastral
16 data of the parcel layers with respect to the geodetic control
17 layer within a GIS resulting in the affirmation of positional
18 accuracy with the intent of being authoritative.

19 (2) Excludes the following activities:

20 (i) The creation of general maps:

21 (A) Prepared by private firms or government agencies for use
22 as guides to motorists, boaters, aviators or pedestrians.

23 (B) Prepared for publication in a gazetteer or atlas as an
24 educational tool or reference publication.

25 (C) Prepared for or by education institutions for use in the
26 curriculum of a course of study.

27 (D) Produced by an electronic or print media firm as an
28 illustrative guide to the geographic location of an event.

29 (E) Prepared by laypersons for conversational or
30 illustrative purposes. This includes advertising material and

1 users guides.

2 (ii) The transcription of previously georeferenced data into
3 a GIS or LIS by manual or electronic means, and the maintenance
4 thereof, if the data is clearly not intended to indicate the
5 authoritative location of property boundaries, the authoritative
6 definition of the shape or contour of the earth or the
7 authoritative location of fixed works of individuals.

8 (iii) The transcription of public record data, without
9 modification except for graphical purposes, into a GIS or LIS
10 based cadastre, including tax maps and associated records, by
11 manual or electronic means, the maintenance of that cadastre and
12 dissemination of the cadastre if the data is clearly not
13 intended to authoritatively represent property boundaries. This
14 includes tax maps and zoning maps.

15 (iv) The preparation and dissemination of a document that
16 does not authoritatively define real property boundaries. This
17 includes civilian and military versions of quadrangle
18 topographic maps, military maps, satellite imagery and other
19 documents.

20 (v) The incorporation or use of documents or databases into
21 a GIS or LIS, including, but not limited to, Federal census and
22 demographic data, quadrangle topographic maps and military maps.

23 (vi) Original data acquisition, inventory maps and databases
24 created for nonauthoritative use by an organization, in either
25 hard copy or electronic form, of physical features, facilities
26 or infrastructure that are wholly contained within properties to
27 which they have rights or for which they have management
28 responsibility. The distribution of these maps or databases
29 outside the organization must contain appropriate metadata
30 describing, at a minimum, the accuracy, method of compilation,

1 data sources and dates and disclaimers of use clearly indicating
2 that the data is not intended to be used as a survey product.

3 (vii) Maps and geospatial databases depicting the
4 distribution of natural resources or phenomena prepared by
5 foresters, geologists, soil scientists, geophysicists,
6 biologists, archeologists, historians or other persons qualified
7 to document the data.

8 (viii) Original data acquisition, maps and geospatial
9 databases depicting assets, features and events prepared by any
10 government agency where the access to that data is restricted by
11 statute.

12 (ix) Original data acquisition, maps and geospatial
13 databases created for use in, and support of, emergency
14 operations, including 911 dispatch.

15 (x) Nonauthoritative GIS or LIS and related activities
16 including, but not limited to, original data acquisition,
17 geospatial database development and maintenance and map creation
18 by any government organization.

19 * * *

20 (j) "Engineering Land Surveys" means surveys for: (i) the
21 development of any tract of land including the incidental design
22 of related improvements, such as line and grade extension of
23 roads, sewers and grading but not requiring independent
24 engineering judgment: Provided, however, That tract perimeter
25 surveys shall be the function of the Professional Land Surveyor;
26 (ii) the determination of the configuration or contour of the
27 earth's surface, or the position of fixed objects thereon or
28 related thereto for purposes of authoritative review, analysis
29 and determination of the location or as-built construction of
30 fixed assets or objects, the post-development contours, or for

1 the purposes of designs based thereon by means of measuring
2 lines and angles and applying the principles of mathematics,
3 photogrammetry or other measurement, mapping or positioning
4 methods without regard to tools or technologies which currently
5 exist or which may be developed in the future, the application
6 of which means and methods involves professional understanding
7 as to the appropriate and safe usage; (iii) geodetic survey,
8 underground survey and hydrographic survey; (iv) storm water
9 management surveys and sedimentation and erosion control
10 surveys; (v) the determination of the quantities of materials;
11 (vi) tests for water percolation in soils; and (vii) the
12 preparation of plans and specifications and estimates of
13 proposed work and attendant costs as described in this
14 subsection. The term does not include any activity under
15 subsection (d) (2).

16 * * *

17 (u) "Agent" shall mean a person who is authorized to act for
18 another through employment, by contract or apparent authority.

19 (v) "Authoritative" shall mean presented as definitive when
20 used to describe products, processes, applications or data to be
21 used as a survey product.

22 (w) "Cadastre" as used in this act or rules promulgated
23 under this act, shall mean a register of property showing the
24 extent, value and ownership of land for taxation.

25 (x) "Contractor" shall mean a person or entity that enters
26 into a contract.

27 (y) "Geospatial technology" shall refer to equipment
28 necessary to acquire, process, store and analyze geospatial
29 data, including global positioning system or GIS.

30 (z) "GIS" shall mean an information system and related

1 applications and infrastructure used to store, view, edit,
2 analyze and display geographical information and associated
3 attribute data related to positions on, above or beneath the
4 Earth's surface.

5 (aa) "Global Positioning System" shall mean a global
6 navigating satellite system and associated components that
7 provides geographic location information.

8 (bb) "LIS" shall mean an automated system used to
9 communicate with other units on vertical and horizontal flow of
10 logistics and maintenance information and status.

11 Section 2. Sections 4.5(c) and 5 are amended to read:

12 Section 4.5. Continuing Professional Competency
13 Requirements.--* * *

14 (c) Each licensee shall be required to obtain twenty-four
15 PDH units during the biennial renewal period. If a licensee
16 exceeds the requirement in any renewal period, a maximum of
17 twelve PDH units may be carried forward into the subsequent
18 renewal period. PDH units may be earned as follows:

19 (1) Successful completion of college courses relevant to
20 professional practice.

21 (2) Completion of continuing education courses relevant to
22 professional practice.

23 (3) Completion of [correspondence, televised, videotaped and
24 other short courses or tutorials relevant to professional
25 practice.] distance learning courses if the course relates to
26 professional practice and the PDH units awarded are verifiable
27 and measurable by the actual hours of instruction.

28 (4) Completion of seminars, employer-sponsored courses,
29 workshops or professional or technical presentations made at
30 meetings, conventions or conferences relevant to professional

1 practice.

2 (5) Teaching, presenting or instructing in any of the
3 activities listed in clauses (1), (2), (3) and (4).

4 (6) Authoring published papers, articles or books relevant
5 to professional practice.

6 (7) Obtaining patents relevant to professional practice.

7 * * *

8 Section 5. Exemption from Licensure and Registration.--

9 Except as specifically provided in this section, this act shall
10 not be construed to require licensure and registration in the
11 following cases:

12 (a) The practice of engineering, land surveying or geology
13 by any person who acts under the supervision of a professional
14 engineer, professional land surveyor or geologist, respectively,
15 or by an employe of a person lawfully engaged in the practice of
16 engineering, land surveying or geology and who, in either event,
17 does not assume responsible charge of design or supervisions;

18 (b) The practice of engineering, land surveying or geology,
19 not exceeding thirty days in the aggregate in one calendar year,
20 by a nonresident not having a place of business in this
21 Commonwealth, if such person is legally qualified to engage in
22 the practice of engineering, land surveying or geology in the
23 state or territory of his residence: Provided, That the person
24 applies for reciprocity in this Commonwealth and that the
25 standards of such state or territory are at least equal to the
26 standards of this Commonwealth;

27 (c) The practice of engineering, land surveying or geology
28 by officers and employes of the United States Government for the
29 said government;

30 (d) Except as otherwise provided in subsection (g) of this

1 section, the practice of engineering or land surveying by a
2 regular employe of a public utility company, as defined by the
3 Public Utility Code (66 Pa.C.S. § 101 et seq.) in connection
4 with the facilities of such public utility, which are subject to
5 regulation by the Pennsylvania Public Utility Commission:

6 Provided, That such public utility shall employ at least one
7 professional engineer, as defined in this act, who shall be in
8 responsible charge of such utility's engineering work and shall
9 employ at least one professional land surveyor, as defined in
10 this act, who shall be in responsible charge of such utility's
11 land surveying;

12 (e) The practice of architecture by a duly registered
13 architect, and the doing of such engineering work as is
14 incidental to his architectural work;

15 [(f) The practice of engineering, land surveying or geology
16 by any person or by any employe of any copartnership,
17 association or corporation upon property owned by such person or
18 such copartnership, association or corporation, unless such
19 practice affects the public safety or health or the property of
20 some other person or entity.]

21 (f.1) The practice of engineering or land surveying by a
22 regular employe or agent of an electric cooperative corporation,
23 as defined in 15 Pa.C.S. § 7302 (relating to application of
24 chapter), in connection with the facilities of the electric
25 cooperative, provided that the electric cooperative corporation
26 or agent thereof either shall employ at least one professional
27 engineer or professional land surveyor or belongs to a
28 Pennsylvania electric cooperative association that employs a
29 professional engineer or professional land surveyor.

30 (g) The practice of engineering, land surveying or geology

1 work by a manufacturing, mining, communications common carrier,
2 research and development or other industrial corporation or by
3 employes of such corporation, provided such work is in
4 connection with or incidental to products of, or non-engineering
5 services rendered by, such corporation or its affiliates.

6 (h) The running of lines or grades and layout work on or
7 within established property limits, or from established points
8 outside the property limits to or within such property limits
9 when performed by a contractor or home builder in conjunction
10 with the construction, reconstruction, alteration, maintenance
11 or demolition of a structure or other facility.

12 (i) The writing of deed descriptions.

13 (j) The preparation of shop drawings or the performance of
14 construction management services by persons customarily engaged
15 in construction work.

16 (k) The practice of individuals providing geologic services
17 to businesses engaged in the exploration or development of gas
18 or oil.

19 (l) The practice of engineering, land surveying or geology
20 work by the employes, contractors or agents of a cable
21 television system, provider of enhanced telecommunications
22 services or provider of telecommunications services, if those
23 services are in connection with or incidental to products of, or
24 nonengineering, land surveying or geology services rendered by
25 the company.

26 Section 3. This act shall take effect in 60 days.