# Washington State Register

# WSR 22-17-121 PERMANENT RULES BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

[Filed August 23, 2022, 7:58 a.m., effective September 23, 2022]

Effective Date of Rule: Thirty-one days after filing.

Purpose: Changes to chapter 196-12 WAC, Professional engineers, are necessary because of updates to chapter 18.43 RCW in 2019, and to clarify the processes and requirements for licensure as a professional engineer in Washington. This rule change will impact all applicants applying for licensure as a professional engineer or structural engineer in Washington, but they will have no additional costs to implement and comply. The amendments better define the requirements for licensure, the different ways an applicant can apply for licensure, and allows more flexibility to the board to consider different types of education and experience that do not follow the "normal" path to licensure.

Citation of Rules Affected by this Order: New WAC 196-12-013 and 196-12-014; repealing WAC 196-12-011 and 196-12-012; and amending WAC 196-12-005, 196-12-010, 196-12-020, 196-12-021, 196-12-030, 196-12-045, 196-12-047, 196-12-055, and 196-12-065.

Statutory Authority for Adoption: RCW 18.43.035.

Adopted under notice filed as WSR 22-10-087 on May 3, 2022.

Changes Other than Editing from Proposed to Adopted Version: WAC 196-12-010 (1)(a), added "practical" back in language.

WAC 196-12-010 (2)(a)(ii)(B), added "and was administered by a board approved foreign jurisdiction."

WAC 196-12-014 (2) (b) (ii), added "per RCW 18.43.050."

Number of Sections Adopted in Order to Comply with Federal Statute: New 0, Amended 0, Repealed 0; Federal Rules or Standards: New 0, Amended 0, Repealed 0; or Recently Enacted State Statutes: New 1, Amended 0, Repealed 1.

Number of Sections Adopted at the Request of a Nongovernmental Entity: New 0, Amended 0, Repealed 0.

Number of Sections Adopted on the Agency's own Initiative: New 2, Amended 9, Repealed 2.

Number of Sections Adopted in Order to Clarify, Streamline, or Reform Agency Procedures: New 2, Amended 9, Repealed 2.

Number of Sections Adopted using Negotiated Rule Making: New 0, Amended 0, Repealed 0; Pilot Rule Making: New 0, Amended 0, Repealed 0; or Other Alternative Rule Making: New 2, Amended 9, Repealed 2. Date Adopted: August 11, 2022.

Ken Fuller Director

OTS-3207.4

<u>AMENDATORY SECTION</u> (Amending WSR 04-04-001, filed 1/21/04, effective 2/21/04)

WAC 196-12-005 Declaration and purpose. This chapter contains rules and procedures for applications, examinations, experience, education, and eligibility ((and examinations)) to ((be)) become licensed as professional engineers.

[Statutory Authority: Chapters 18.43 and 18.235 RCW. WSR 04-04-001, \$196-12-005, filed 1/21/04, effective 2/21/04.]

AMENDATORY SECTION (Amending WSR 18-10-085, filed 5/1/18, effective 6/1/18)

- WAC 196-12-010 ((Registration)) Licensure requirements for all applicants—Initial licensure and licensed in another jurisdiction.

  To become licensed as a professional engineer in the state of Washington, whether you are applying for an initial license or you possess a license in another jurisdiction, you must meet the requirements for experience and examinations described below, which need not be completed within the state of Washington:
- (1) **Experience:** Have eight years of experience in engineering work of a character satisfactory to the board:
- (a) The eight years ((of experience)) may be a combination of education and practical work experience. ((Under selected circumstances a maximum of five years of education (baccalaureate and master's degrees in engineering) can be granted toward the eight-year requirement;))
- (b) The eight years of experience must be broad based( $(\tau)$ ) and progressive ((experience)) to include gaining knowledge and comprehension of engineering subjects and applying engineering principles.
- (2) ((Receive a)) Examination requirements: An applicant must have received passing scores on two stages of examination(s). One must test the fundamentals of engineering and the other must test the principles and practice of engineering. Exam results must be independently verified by a NCEES member board, or a board approved foreign jurisdiction.
- (a) (i) Fundamentals of engineering examination must meet the following requirements:
  - (ii) The examination must be either:
- (A) The National Council of Examiners for Engineering and Surveying (NCEES) fundamentals-of-engineering (FE) examination((. Or, have a current license as a Canadian professional engineer (P.Eng), and having received a passing score on the Engineers Canada Professional Practice Examination (PPE);
  - (3) Receive a passing score on the NCEES)); or
- (B) An equivalent examination as determined by the board which tests the applicant's knowledge of appropriate fundamentals of engineering subjects including mathematics and the basic sciences as defined in RCW 18.43.040 (1) (b) (i) and was administered by a board approved foreign jurisdiction.
- (b) Principles and practice of engineering ((<del>PE)</del>)) examination( $(\div (4+))$ ):

The principles and practice of engineering (PE) examination must be the examination administered by NCEES.

(3) Additional licensure requirements:

An applicant must meet the following additional requirements for  $\underline{\text{licensure:}}$ 

- (a) Receive a passing score on the Washington law review;
- $((\frac{5)}{6})$  Be of good character and reputation))  $\underline{(b)}$  Fully complete the application form to the satisfaction of the board; and

((6) Payment of)) (c) Pay all applicable fees.

((Exam results must be independently verified by the NCEES member board, or engineers Canada constituent association that granted approval to take the exam.))

[Statutory Authority: RCW 18.43.035. WSR 18-10-085, § 196-12-010, filed 5/1/18, effective 6/1/18; WSR 15-08-064, § 196-12-010, filed 3/27/15, effective 4/30/15; WSR 14-07-106, § 196-12-010, filed 3/19/14, effective 4/19/14; WSR 08-11-100, § 196-12-010, filed 5/20/08, effective 7/1/08. Statutory Authority: Chapters 18.43 and 18.235 RCW. WSR 04-04-001, § 196-12-010, filed 1/21/04, effective 2/21/04. Statutory Authority: RCW 18.43.035. WSR 98-12-052, § 196-12-010, filed 5/29/98, effective 7/1/98; WSR 88-12-044 (Order PM 738), § 196-12-010, filed 5/27/88; WSR 87-13-005 (Order PM 606), § 196-12-010, filed 6/4/87; WSR 84-04-027 (Order PL 454), § 196-12-010, filed 1/25/84; WSR 82-01-064 (Order 81-10), § 196-12-010, filed 1/25/84; WSR 82-01-064 (Order 81-10), § 196-12-010, filed 1/25/86; Rule 11A, filed 1/15/65; Rule IIA, filed 8/4/64; Rule IA, filed 12/26/62.]

# NEW SECTION

- WAC 196-12-013 FE examination application. (1) ABET accredited degree applicants. For those who have attended ABET accredited degree programs and now have reached senior standing, applications to take the FE examination may be completed online directly with NCEES. Applicants should list the state of Washington as their licensing state.
- (2) **All other applicants**. Those who do not meet the requirements of subsection (1) of this section must fill out the FE exam application provided on the board website, https://brpels.wa.gov/, demonstrate they meet the requirements, provide required documentation, and be approved by the board to take the examination.

Further details on education experience records are provided under WAC 196-12-021.

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## NEW SECTION

WAC 196-12-014 PE licensure application form. The board has a single application form for PE licensure in the state of Washington. This application form must be used by all applicants including those applying for the PE exam and licensure concurrently, those who have already taken the PE examination in another jurisdiction but have not

obtained their initial license, and those who are already licensed in another jurisdiction and are seeking a license in Washington state.

(1) Current PE examination and licensure applications: Applicants who have not taken the PE examination will apply for both the PE examination and licensure on the application form. In order to be approved by the board to take the PE examination, the applicant must complete all sections of the form, except the date and location of taking the PE exam and must otherwise meet all of the qualifications for licensure. Upon passing the PE examination, the applicant is also qualified for licensure.

Applications for PE examination and licensure must be received at the board's address with the applicable fee by the date posted on the board's website.

- (2) All other applicants for PE licensure in Washington state. All other applicants applying for licensure in the state of Washington, including those who are licensed in another jurisdiction or have passed the Principles & Practices of engineering examination but have not obtained their initial license, must complete all sections of the application form provided by the board.
- (a) All applicants must provide information on the application form that demonstrates they meet all requirements for licensure. This includes work experience requirements, education requirements, and examination requirements as detailed in WAC 196-12-010, 196-12-020, and 196-12-021; and RCW 18.43.040.
- (b) All applicants must provide the following documents to verify these requirements:
- (i) Education experience records Official transcripts or the equivalent, showing all grades and degrees.
- (ii) Work experience records Completed form titled "Professional Engineering Experience Verification" which includes not only work experience information and details but also verifications of work experience by supervisors or other verifiers, per RCW 18.43.050.
- (iii) Verification of licensing in any other jurisdiction(s), if any.
- (iv) Verification of passing the FE examination or its equivalent (if any) and verification of passing the PE examination.

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AMENDATORY SECTION (Amending WSR 08-11-100, filed 5/20/08, effective 7/1/08)

WAC 196-12-020 Work experience records. The following criteria will be used in evaluating an applicant's experience record:

- (1) Work experience will be approved based on a demonstration of competency and progressive responsibility in the analysis, synthesis and evaluation of engineering concepts and data, under the direct supervision of a person authorized by chapter 18.43 RCW or other applicable statute to practice engineering. Under the general guidance and direct supervision of an authorized professional, the applicant must be in a position of making independent judgments and decisions in the following experience areas:
  - (a) Formulating conclusions and recommendations;
  - (b) Identifying design and/or project objectives;
  - (c) Identifying possible alternative methods and concepts;

- (d) Defining performance specifications and functional requirements;
  - (e) Solving engineering problems;
- (f) Interacting with <u>allied</u> professionals ((<del>from other areas of practice</del>));
  - (g) Effectively communicating recommendations and conclusions;
- (h) Demonstrating an understanding and concern for energy/environmental considerations, socioeconomic impact, and sustainability of resources.
- (2) ((The branch of structural engineering requires specialized work experience to protect the public safety. To be eligible to take the structural license examination, an applicant must have at least two years of progressive responsibility in structural engineering experience. These two years of structural experience are in addition to the eight years of engineering experience required to be registered as a professional engineer and must be documented in the application in accordance with subsection (1) of this section. The structural engineering experience must be supervised by a licensed professional engineer in the branch of structural engineering or a licensed professional engineer with substantial structural engineering work experience.
- (3)) Engineering teaching may be considered satisfactory experience up to a maximum of two years at the discretion of the board.
- $((\frac{4}{}))$  Applied research is considered satisfactory experience when it meets the following conditions:
- (a) The research must be conducted under the guidance or supervision of a ((licensed)) professional engineer. For the purposes of this subsection, guidance or supervision means being cognizant of all applicable aspects of the work and a reviewer of all applicable reporting documentation.
- (b) The principal result(s) of the research are in a published report or a recognized engineering journal article in which the applicant is the ((first)) primary author or the work is adequately documented and available to the board upon request.
- $((\frac{5}{})))$   $\underline{(4)}$  For military engineering experience to be considered acceptable, it should be similar to engineering experience that would be gained in a nonmilitary environment as defined in subsection (1) of this section, and such experience must be verified.
- ((<del>(6)</del> Any)) <u>(5)</u> All work experience gained ((<del>without</del>)) <u>must be</u> <u>under</u> the <u>direct</u> supervision of a professional engineer authorized to practice under chapter 18.43 RCW or an individual authorized by another statute to practice engineering((<del>, or any work experience gained in any other situation which violates the provisions of chapters 18.43 and 18.235 RCW or Title 196 WAC will not be counted toward the statutory experience requirement)).</del>

[Statutory Authority: RCW 18.43.035. WSR 08-11-100, § 196-12-020, filed 5/20/08, effective 7/1/08. Statutory Authority: Chapters 18.43 and 18.235 RCW. WSR 04-04-001, § 196-12-020, filed 1/21/04, effective 2/21/04. Statutory Authority: RCW 18.43.035. WSR 02-01-071, § 196-12-020, filed 12/14/01, effective 1/30/02; WSR 98-12-052, § 196-12-020, filed 5/29/98, effective 7/1/98; WSR 92-01-101, § 196-12-020, filed 12/17/91, effective 1/17/92; WSR 87-13-005 (Order PM 606), § 196-12-020, filed 6/4/87; WSR 84-04-027 (Order PL 454), § 196-12-020, filed 1/25/84; WSR 82-01-064 (Order 81-10), § 196-12-020, filed 12/18/81; Order PL-115, § 196-12-020, filed 11/24/71; Rule IIB, filed 11/15/65; Rule IIB, filed 5/26/65; Rule IIB, filed 8/4/64; Rule IB, filed 12/26/62.]

AMENDATORY SECTION (Amending WSR 14-07-106, filed 3/19/14, effective 4/19/14)

- WAC 196-12-021 Education experience records. Official transcripts must be sent to the board's office for ((full education experience credit)) review and approval.
- (1) A baccalaureate degree in engineering in a program accredited by ((the engineering accreditation commission (EAC) of)) the accreditation board for engineering and technology (ABET) is equivalent to four years of required experience. Satisfactory completion of each year of such an approved program is equivalent to one year of experience.
- (2) ((A baccalaureate degree in an engineering technology program accredited by the technology accreditation commission (TAC) of ABET, is equivalent to three years of required experience. Satisfactory completion of each year of such an approved program is equivalent to three-fourths of one year of experience.
- (3) An approved four years in)) A degree in engineering from a non-ABET accredited engineering program (( $\frac{1}{2}$ )) may be given (( $\frac{1}{2}$ ) may be given (( $\frac{1}{2}$ ) may be given (( $\frac{1}{2}$ ) may be given ( $\frac{1}{2}$ ) four years at the discretion of the board. The board will determine if the degree is satisfactory in awarding years of experience.
- $((\frac{4}{}))$  No more than one year may be granted for postgraduate engineering courses ((for those applicants having earned degrees in accordance with subsections (1), (2), or (3) of this section)).
- $((\frac{5}{}))$  A baccalaureate degree in a nonengineering program will be given a maximum of two years of experience.
- ((If the degree is followed by a graduate degree in engineering from a school that has an ABET accredited undergraduate program in the same discipline as the graduate degree, a maximum of four years of experience may be granted for this combination of education.
- $\frac{(6)}{(5)}$ ))  $\frac{(5)}{(5)}$  An associate degree in engineering from an approved program may be equivalent for up to two years of experience.
- ((7) Education gained over time where no degree is conferred will be granted no more than two years of experience. For the purpose of this subsection, education over time means:)) (6) Sporadic engineering related education may be considered as experience by the board at its discretion. For example, one or two engineering classes taken at a time, often at different schools; ((seminars; workshops; and)) and/or classes taken through industry ((and)) or the military may count as experience. In ((order to determine the appropriate amount of experience,)) evaluating this type of education, the board will ((be compared)) compare the courses taken to college coursework in a baccalaureate of engineering ((technology)) degree program.
- (((8) The board may approve engineering degree programs from other er countries.))
- (a) A number of foreign degree programs are included in mutual recognition agreements entered into by ABET with other accrediting authorities. Applicants with a degree from one of these programs will be evaluated ((in accordance with subsections (1) and (2) of this section)) by the board.
- (b) Applicants having engineering degrees from programs in countries that are not ABET accredited will be required to have their transcripts evaluated by a transcript evaluation service approved by the board. This evaluation will be performed at the applicant's expense, and the applicant will be responsible for submitting all necessary information to the evaluation service. The board will use the

evaluation to determine if the foreign degree is ((equivalent to an ABET accredited degree. If the board determines that the degree is equivalent, experience will be granted in accordance with subsection (1) or (2) of this section. If the board determines that the foreign degree is not equivalent to an ABET accredited degree, then a maximum of three years of experience will be granted in accordance with subsection (3) of this section)) satisfactory to the board to award years of experience.

- (c) An applicant with an undergraduate degree from a foreign program that is not ABET accredited, can waive the requirement for a degree evaluation if they have a graduate degree in engineering from a school that has an ABET accredited undergraduate engineering degree program in the same discipline as the graduate degree. ((No more than four)) Years of experience will be ((granted for this combination of education)) determined at the discretion of the board.
- $((\frac{9}{}))$  Any other education  $(\frac{will}{})$  may be taken into account and evaluated on its merits by the board.
- $((\frac{10}{10}))$  <u>(8)</u> Work experience gained between semesters or quarters or during summers while enrolled in an approved curriculum (( $\frac{10}{10}$ ) be considered part of the educational process. No more than one year of experience will be granted for one calendar year)) may be counted as experience at the discretion of the board.

[Statutory Authority: RCW 18.43.035. WSR 14-07-106,  $\S$  196-12-021, filed 3/19/14, effective 4/19/14; WSR 08-11-100,  $\S$  196-12-021, filed 5/20/08, effective 7/1/08.]

AMENDATORY SECTION (Amending WSR 14-07-106, filed 3/19/14, effective 4/19/14)

WAC 196-12-030 ((Principles and practice)) Additional branches of engineering ((examination)). ((The principles and practice of engineering examination is given at times and places as approved by the board.)) A professional engineer with a current registration in the state of Washington that is seeking to become licensed in an additional branch of engineering must pass the principles and practice examination for that additional branch.

[Statutory Authority: RCW 18.43.035. WSR 14-07-106, § 196-12-030, filed 3/19/14, effective 4/19/14; WSR 08-11-100, § 196-12-030, filed 5/20/08, effective 7/1/08. Statutory Authority: Chapters 18.43 and 18.235 RCW. WSR 04-04-001, § 196-12-030, filed 1/21/04, effective 2/21/04. Statutory Authority: RCW 18.43.035. WSR 02-01-071, § 196-12-030, filed 12/14/01, effective 1/30/02; WSR 01-09-016, § 196-12-030, filed 4/6/01, effective 5/7/01; WSR 98-12-052, § 196-12-030, filed 5/29/98, effective 7/1/98; WSR 93-01-081, § 196-12-030, filed 12/15/92, effective 1/15/93; WSR 84-04-027 (Order PL 454), § 196-12-030, filed 1/25/84; WSR 82-01-064 (Order 81-10), § 196-12-030, filed 12/18/81; Order PL-129, § 196-12-030, filed 7/27/72; Order PL-115, § 196-12-030, filed 11/24/71; Order 11, § 196-12-030, filed 9/12/68; Rule IIC, filed 11/15/65, 8/4/64; Rule IC, filed 12/26/62.]

<u>AMENDATORY SECTION</u> (Amending WSR 18-10-085, filed 5/1/18, effective 6/1/18)

- WAC 196-12-045 Registration of applicants licensed in other jurisdictions. Licenses may be issued only in the branches of engineering ((offered)) currently recognized by the board. The board has discretion to issue a license to an out-of-state licensee who meets the following requirements:
- (1) Completes ((an)) the application ((on forms)) form provided by the board including supporting documentation, as listed in WAC 196-12-010, 196-12-014, 196-12-020, 196-12-021, and pays the appropriate fee;
- (2) Holds a currently valid license in a board recognized licensing jurisdiction in a state, territory, possession, district, or foreign country; and
- (3) Meets minimum requirements for licensure as determined by the board under WAC 196-12-010 and 196-12-014, including testing that adequately measures the fundamentals of engineering and principles and practice of engineering.

[Statutory Authority: RCW 18.43.035. WSR 18-10-085, § 196-12-045, filed 5/1/18, effective 6/1/18; WSR 08-11-100, § 196-12-045, filed 5/20/08, effective 7/1/08. Statutory Authority: Chapters 18.43 and 18.235 RCW. WSR 04-04-001, § 196-12-045, filed 1/21/04, effective 2/21/04. Statutory Authority: RCW 18.43.035. WSR 98-12-052, § 196-12-045, filed 5/29/98, effective 7/1/98.]

AMENDATORY SECTION (Amending WSR 18-10-085, filed 5/1/18, effective 6/1/18)

- WAC 196-12-047 Structural licensing requirements. The branch of structural engineering requires specialized work experience to protect the public health, safety, and welfare. To be licensed as a structural engineer, an applicant must:
- (1) Be <u>currently</u> licensed as a professional engineer in Washington state;
- (2) Have at least two years of progressive responsibility in structural engineering experience in addition to the eight years of engineering experience required to be registered as a professional engineer. The structural experience should:
- (a) Demonstrate the applicant's ability to design building structures or nonbuilding structures integrated within "significant structures" as defined in RCW 18.43.020(((11)) and located in International Building Code (IBC) Seismic Design Category D or above)) (12);
  - (b) Be progressive in difficulty and magnitude;
- (c) Demonstrate breadth and depth of seismic design ((subject matter)) and detailing experience for projects in seismic regions similar to those located in Washington state;
- (d) Incorporate two of the four common construction materials
  (steel, concrete, wood, and masonry);
- (e) Reflect ability to design and apply structural engineering principles that show sound judgment on projects involving public health, safety, and welfare;
- (f) Be supervised by a licensed professional engineer in the branch of structural engineering or a licensed professional engineer

with substantial structural engineering work experience <u>for projects</u> <u>in seismic regions similar to those located in Washington state</u>; and (3) Pass a board approved structural exam.

[Statutory Authority: RCW 18.43.035. WSR 18-10-085, \$196-12-047, filed 5/1/18, effective 6/1/18.]

AMENDATORY SECTION (Amending WSR 08-11-100, filed 5/20/08, effective 7/1/08)

- WAC 196-12-055 Permit for temporary practice. Any nonresident engineer who intends to practice engineering in the state of Washington on a temporary basis must provide the board with the following before starting any work:
  - (1) A completed application with applicable fees.
  - (2) Dates work is to be started.
  - (3) Name and address of client.
  - (4) Description and location (address) of project.
- (5) Name and contact information for local permitting authority. Plans, specifications, and reports prepared by the nonresident engineer must be signed, dated, and stamped with their professional

engineer must be signed, dated, and stamped with their professional seal. A copy of the permit issued by this board shall be attached to the engineering documents submitted for approval or building permit.

[Statutory Authority: RCW 18.43.035. WSR 08-11-100, § 196-12-055, filed 5/20/08, effective 7/1/08. Statutory Authority: Chapters 18.43 and 18.235 RCW. WSR 04-04-001, § 196-12-055, filed 1/21/04, effective 2/21/04.]

AMENDATORY SECTION (Amending WSR 08-11-100, filed 5/20/08, effective 7/1/08)

- **WAC 196-12-065 Retired status.** A professional engineer having reached the age of ((sixty-five)) <u>65</u> and having discontinued active practice as a professional engineer may be eligible for retired status. "Active practice" is defined as exercising direct supervision and control over any professional engineering activity as defined in RCW 18.43.020(5).
- (1) Request for retired status. Upon approval, a request for retired status will be granted effective the next scheduled renewal date.
  - (2) A licensee on retired status may:
  - (a) Retain the board issued wall certificate of registration;
- (b) Use the title <u>"retired professional engineer" or "PE-retired"</u> or "SE-retired" as appropriate;
- (c) Work as an engineer in a volunteer capacity, provided that the retired licensee does not create an engineering document or use their seal;
- (d) Provide experience verifications and references for persons seeking registration;
  - (e) Serve as an instructor for engineering related courses;

- (f) Provide services as a technical expert before a court, or in preparation for pending litigation, on matters directly related to engineering work performed by the licensee;
- (g) Serve in a function that supports the principles of registration and/or promotes the profession of engineering, such as members of commissions, boards or committees;
- (h) Serve in an engineering capacity as a "good samaritan." The state laws governing such activity are RCW 38.52.195 and 38.52.1951 and chapter 18.43 RCW.
  - (3) A licensee on retired status must not:
- (a) Perform any engineering activity, as provided for in RCW 18.43.020(5), unless the activity is under the direct supervision of a licensed professional engineer with an active registration in Washington;
- (b) Act as the designated engineer for a corporation or limited liability company;
- (c) Apply their professional engineers seal to any plan, specification, ((<del>plat</del>)) or report.
- (4) Certificate of registration reinstatement. A retired licensee may resume active engineering practice with payment of the current renewal fee.
- (5) Exemptions. A licensee is not eligible for retired status if their license to practice is under board ordered sanction. This exemption exists until the sanctions have been lifted or satisfied by the board.

[Statutory Authority: RCW 18.43.035. WSR 08-11-100, § 196-12-065, filed 5/20/08, effective 7/1/08. Statutory Authority: Chapters 18.43 and 18.235 RCW. WSR 04-04-001, § 196-12-065, filed 1/21/04, effective 2/21/04.]

## REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 196-12-011 Application requirements.

WAC 196-12-012 Reexamination requirements.