

*AG #1708
Engineer Rule*

1 Board of Architecture, Engineering, Land Surveying, and
2 Landscape Architecture

3
4 Adopted Permanent Rules Relating to Examination of Architect and
5 Engineer Applicants

6
7 Rules as Adopted

8 1800.1000 EDUCATION AND EXPERIENCE.

9 Subpart 1. Written examination requirement. An applicant
10 for licensure as an architect shall pass a written examination
11 as provided in part 1800.1200. Written examinations are
12 required of all applicants except those licensed under part
13 1800.0800, items D and G, that apply to those architects
14 licensed in one or more states other than Minnesota. An
15 applicant for licensure under part 1800.0800, items D and G,
16 must satisfy the Minnesota licensing requirements that were in
17 effect at the time of the applicant's original licensure in the
18 other state.

19 Subp. 1a. Admission to written examination. To qualify
20 for admission to the written examination, an applicant shall
21 present evidence that the applicant has obtained at least 13
22 qualifying credits as provided in this part. At least ten of
23 the qualifying credits must be for education and at least three
24 of the qualifying credits must be for experience. The
25 qualifying credits shall be granted as provided in subparts 5
26 and 6.

27 Subp. 2. to 4. [See Repealer.]

28 Subp. 5. Credits for education. Qualifying credits for
29 education shall be granted as follows:

30 A. An applicant who has graduated from an
31 architectural curriculum accredited by the National
32 Architectural Accrediting Board (NAAB), shall, at the time of
33 graduation or within two years after graduation, receive ten
34 qualifying credits for education.

35 B. An applicant holding a four-year baccalaureate

1 preprofessional degree in environmental design or architectural
2 studies shall be granted credit depending on the number of years
3 of architectural design courses successfully completed. An
4 applicant with three years of design courses shall be granted
5 eight qualifying credits. An applicant with two years of design
6 courses will be granted six qualifying credits. In no case
7 shall the applicant holding a preprofessional degree be granted
8 less than six qualifying credits for education.

9 C. An applicant holding a four-year baccalaureate
10 degree from the following curricula shall be given six
11 qualifying credits for education:

12 (1) curricula in architectural, chemical, civil,
13 electrical, mechanical, or structural engineering accredited by
14 the Accreditation Board for Engineering and Technology (ABET);

15 (2) curricula in landscape architecture
16 accredited by the American Society of Landscape Architects
17 Committee on Education; or

18 (3) curricula in interior design accredited by
19 the Foundation on Interior Design Education Research.

20 D. An applicant holding a two-year associate degree
21 in architectural technology or architectural drafting from a
22 community college or technical institute shall receive two
23 qualifying credits for education.

24 E. For the purposes of this subpart, 32 semester
25 credit hours or 48 quarter credit hours is considered to be one
26 year of education. Fractions of a year of education shall be
27 given credit in the amount earned.

28 F. An applicant holding a degree or having completed
29 coursework from a foreign college or university shall be granted
30 credit toward the requirements of this subpart on the same basis
31 as a graduate of a United States college or university if the
32 board determines that the educational requirements for the
33 degree are equivalent to the requirements of this subpart. The
34 applicant shall furnish a copy of the applicant's grade
35 transcript, including course descriptions of courses
36 successfully completed, in English, with the initial application

1 for evaluation by the board.

2 Subp. 6. Credits for experience. Qualifying credits for
3 experience shall be granted as follows:

4 A. The applicant's total experience must meet the
5 requirements for qualifying experience in subpart 7.

6 B. Experience must be acquired after graduation,
7 except that continuous experience in periods of ten or more
8 weeks gained before graduation shall be counted if gained as
9 specified in subpart 7 after graduation from high school.

10 C. Each year of experience gained under the direct
11 supervision and control of a licensed architect shall count for
12 one qualifying credit.

13 D. Each year of architecturally related experience
14 gained under the direct supervision and control of a licensed
15 professional engineer, licensed landscape architect, or an
16 interior designer certified by the American Society of Interior
17 Designers shall count for one-half qualifying credit.

18 Subp. 7. Qualifying experience defined. As used in this
19 part, qualifying experience consists of experience gained in
20 each of the following areas of the practice of architecture in
21 accordance with the minimum number of hours shown.

22 A. Design and construction:

- 23 (1) programming and client contact, 80 hours;
24 (2) site and environmental analysis, 80 hours;
25 (3) schematic design, 120 hours;
26 (4) building code analysis, 80 hours;
27 (5) code research, 120 hours;
28 (6) design development, 320 hours;
29 (7) construction documents, 1,240 hours;
30 (8) specifications and materials, 120 hours; and
31 (9) document checking, 120 hours.

32 B. Construction and administration:

- 33 (1) bidding procedures, 80 hours;
34 (2) construction office, 120 hours; and
35 (3) construction observation, 120 hours.

36 C. Office management:

1 (1) office procedures, 120 hours; and

2 (2) professional activities, 80 hours.

3 The number of hours shown are minimum time requirements for
4 the areas of practice listed and do not represent three years of
5 experience. More experience may be gained in any of these areas
6 of practice to total 5,600 hours or three years of experience.
7 Persons requiring more than three years of experience shall
8 document qualifying experience in the amount of 1,867 hours for
9 each year required.

10 Subp. 8. **Future admission requirements.** Effective January
11 1, 1991, admission to the registration examination is limited to
12 holders of a degree from a curriculum accredited by the National
13 Architectural Accrediting Board (NAAB), or architectural
14 education equivalent to that curriculum as determined by the
15 board. Persons with board approved applications as of January
16 1, 1991, are permitted to continue the examination process until
17 licensed to practice architecture in Minnesota.

18 1800.1100 PROCEDURES.

19 Subpart 1. **Completion date.** An applicant may request to
20 be admitted to an examination if the applicant has completed, or
21 will have completed the educational and experience requirements
22 in part 1800.1000 by the time of the examination.

23 Subp. 2. **Preliminary admission request.** Applicants shall
24 submit to the board a preliminary request for admission to the
25 licensing examination. The request shall be submitted on a form
26 provided by the board and must include a detailed listing of all
27 architecturally related experience gained in accordance with
28 part 1800.1000. The experience listing shall include the name
29 and mailing address of the applicant's supervising licensed
30 architect or other supervisor for each period of employment. A
31 transcript of grades showing the date of award of any degree
32 earned shall accompany the submittal. Upon approval of the
33 preliminary request by the board, the applicant shall be
34 provided formal application materials. The preliminary request
35 shall be submitted to the board by February 1 for the June

1 examination and by August 1 for the December examination.

2 Subp. 3. **Formal admission application.** Applicants shall
3 by April 1 for the June examination and by October 1 for the
4 December examination submit a formal application for admission
5 to the licensing examination on a form provided by the board.
6 The formal application shall include one signed copy of board
7 rules of professional conduct and a fee as specified in part
8 1800.0500, subpart 5, item A.

9 Subp. 4. **Obtaining application.** Application materials may
10 be obtained by calling or writing the board office.

11 1800.1200 WRITTEN EXAMINATION.

12 Subpart 1. **Architect Registration Examination.** The
13 Architect Registration Examination (ARE) shall be administered
14 twice annually at a time and place determined by the board to
15 those applicants determined by the board to meet the
16 requirements of part 1800.1000 for admission to the examination.
17 Any person failing one or more parts of the ARE shall retake the
18 failed parts.

19 Subp 2. to 4. [See Repealer.]

20 Subp. 5. **Equipment during examinations.** Silent,
21 hand-held, battery-operated electronic calculators may be used
22 as required during the ARE.

23 1800.2500 EDUCATION AND EXPERIENCE.

24 Subpart 1. **Written examination requirement.** An applicant
25 for licensure as a professional engineer shall pass a written
26 examination as provided in this subpart. Written examinations
27 are required of all applicants except those licensed under part
28 / 1800.0800, items E and G, that apply to those professional
29 engineers licensed in one or more states other than Minnesota.
30 An applicant for licensure under part 1800.0800, items E and G,
31 must satisfy the Minnesota licensing requirements that were in
32 effect at the time of the applicant's original licensure in the
33 other state. The written fundamentals of engineering (EIT)
34 examination shall be waived by the board if the applicant meets
35 the requirements in part 1800.2800.

1 Subp. 2. Admission to written examination. To qualify for
2 admission to the written examination, the applicant shall
3 present evidence of:

4 A. Graduation from an engineering curriculum
5 accredited by the Engineering Accrediting Commission (EAC) of
6 the Accreditation Board for Engineering and Technology (ABET) at
7 the time of graduation; and

8 B. Completion of a minimum of four years of
9 qualifying engineering experience, if the applicant has
10 graduated from a baccalaureate curriculum in engineering
11 accredited by the ABET-EAC. Three years of qualifying
12 engineering experience is required, if the applicant has
13 graduated from a masters or doctoral curriculum in engineering
14 from an institution with an ABET-EAC accredited baccalaureate
15 curriculum in that discipline of engineering. Not more than two
16 years credit shall be allowed for qualifying engineering
17 experience, gained before graduation from an accredited
18 engineering curriculum. The two years experience before
19 graduation must have been gained after completion of the second
20 year of approved engineering education. The experience shall be
21 credited at the rate of 50 percent up to the maximum allowable
22 credit of two years.

23 Subp. 3. Exception for nonaccredited education. An
24 applicant who does not meet the requirements of subpart 2 may
25 qualify for admission to the examinations if evidence is
26 submitted to the board that education and qualifying engineering
27 experience completed meet the following requirements:

28 A. The education requirements of an applicant whose
29 education was not obtained in an engineering curriculum
30 accredited by the Accreditation Board for Engineering and
31 Technology shall be accepted only if the education is determined
32 by the board to be equivalent to the content of the accredited
33 curriculum required for a bachelor of science degree in
34 engineering. The applicant shall be required to submit a
35 transcript of grades, along with descriptions of courses taken
36 from the educational institution from which the applicant

1 graduated, for evaluation by the board to determine the credit
2 to be allowed for that education.

3 B. If the applicant holds a degree from a
4 nonaccredited four-year engineering curriculum, that person will
5 be required to document six years of qualifying and verifiable
6 engineering experience following graduation. If the applicant
7 also holds a master's or doctoral degree in engineering, the
8 applicant shall document five years of qualifying and verifiable
9 engineering experience following graduation. Up to two years
10 credit shall be allowed for qualifying and verifiable
11 engineering experience gained before graduation, as provided in
12 subpart 2, item B.

13 1800.2600 ORAL EXAMINATION.

14 An applicant shall appear before the board for oral
15 examination and submit two exhibits of engineering work the
16 applicant has performed if:

17 A. the experience record does not clearly indicate
18 the required qualifying engineering experience;

19 B. the applicant does not hold a degree from an
20 approved engineering curriculum; or

21 C. the applicant qualifies for waiver of the
22 fundamentals of engineering examination as provided in part
23 1800.2800.

24 An applicant residing in an overseas area shall submit one
25 exhibit of the applicant's engineering work with a written
26 critique of that exhibit in lieu of the oral examination.

27 1800.2700 WRITTEN EXAMINATION.

28 Subpart 1. **Two-part examination.** The written examination
29 consists of the two parts described in subparts 1a and 2.

30 Subp. 1a. **Fundamentals examination.** Part I is the
31 fundamentals of engineering examination that may be taken upon
32 graduation from an engineering curriculum meeting the
33 requirements of part 1800.2500. The passing of this examination
34 gives the applicant the status of engineer-in-training as
35 defined in Minnesota Statutes, section 326.10, subdivision 7.

1 The applicant shall not again be required to take this
2 examination. The applicant shall take and pass the fundamentals
3 of engineering examination (EIT) before being permitted to take
4 the professional examination.

5 Subp. 2. **Professional examination.** Part II is the
6 professional examination covering the principles and practice of
7 engineering examination, is an examination in a field of major
8 practice and is required as outlined in this subpart.
9 Examinations are presently offered in the following fields of
10 major practice in engineering: aeronautical/aerospace,
11 agricultural, ceramic, chemical, civil, electrical, fire
12 protection, geological, industrial, manufacturing, mechanical,
13 metallurgical, mining/minerals, nuclear, petroleum, sanitary,
14 and structural.

15 Subp. 3. **Scope of examinations.** The scope of the
16 fundamentals of engineering examination, EIT and the principles
17 and practice of engineering examination is as follows:

18 A. **Fundamentals of engineering examination, EIT:**
19 multiple-choice questions in mathematics and the basic and
20 engineering sciences as presented in accredited college or
21 university engineering curriculum. Allotted time: eight hours.

22 B. **Principles and practice of engineering**
23 **examination:** problems embracing knowledge of professional
24 practice and applied economics as acquired in connection with
25 the planning, design, and construction of engineering work
26 during the required period of qualifying engineering
27 experience. This part of the examination, together with the
28 oral examination or exhibit with written critique, shall not be
29 permitted until the full required period of qualifying
30 engineering experience has been completed. Allotted time:
31 eight hours.

32 Subp. 4. **Purpose of the principles and practice of**
33 **engineering examination.** The principles and practice of
34 engineering examination is given to determine the proficiency of
35 the applicant in professional practice. This examination shall
36 include questions designed to test whether the applicant has

1 learned to apply the knowledge and understanding of the basic
2 and engineering sciences gained through training and experience
3 to the solution of engineering problems.

4 Subp. 5. [Unchanged.]

5 1800.2800 ENGINEERS QUALIFIED BY GRADUATION, LONG EXPERIENCE,
6 AND EXAMINATION.

7 The fundamentals of engineering examination must be waived
8 in those cases where the applicant furnishes evidence of:

9 A. graduation from an accredited engineering
10 curriculum, or receipt of a graduate degree based upon at least
11 one academic year of resident study in a department whose
12 undergraduate curriculum is accredited by the Accreditation
13 Board for Engineering and Technology (ABET); being at least 40
14 years of age; and having a verified professional engineering
15 record of 20 years or more of qualifying engineering experience;

16 B. holding membership in a British Institute of
17 Engineering as a chartered engineer by examination or other
18 national certification by examination as approved by the board;
19 or

20 C. having a doctorate degree in engineering from an
21 educational institution whose baccalaureate curriculum is
22 accredited by ABET-EAC or whose education is equivalent thereto.

23 An applicant qualifying under item A, B, or C shall pass a
24 written professional practice examination of at least eight
25 hours duration. To qualify for waiver of the fundamentals of
26 engineering examination under item A, the applicant's
27 engineering experience shall show responsible charge of
28 engineering projects for at least ten years and advancement in
29 the character of the work performed. The experience gained
30 before reaching the age of 20 years shall not be credited as a
31 part of the required engineering experience, except that
32 graduation from an accredited baccalaureate engineering
33 curriculum shall be considered equivalent to four years of
34 engineering experience. Credit shall not be given for more than
35 a total of four years experience because of undergraduate

1 educational qualifications.

2 1800.2805 QUALIFYING EXPERIENCE DEFINED.

3 As used in this part and parts 1800.2600, 1800.2700, and
4 1800.2800, qualifying experience consists of varied,
5 progressive, nonrepetitive, practical experience at engineering
6 work, developing the ability to apply the theoretical knowledge
7 gained during academic training in making sound judgments in
8 solving engineering problems. The varied experience must
9 include increments of design, planning, technical specification,
10 codes and standards research and analysis, engineering
11 economics, safety, observation, and inspection of construction
12 of products. Experience shall be written in detail and
13 submitted with the application for evaluation and approval by
14 the board.

15 1800.2900 PROCEDURES.

16 Subpart 1. **Application deadline.** An applicant shall
17 submit an application for admission to the fundamentals of
18 engineering examination explained in part 1800.2700, subpart 1a,
19 by February 1 for the April examination or by August 1 for the
20 October examination. Application shall be made on a form
21 provided by the board and shall include the fee specified in
22 part 1800.0500, subpart 5, item B, subitem (1). A transcript of
23 grades showing the date of award of the degree earned shall be
24 submitted before the applicant may be certified as
25 engineer-in-training.

26 Subp. 2. **Preliminary request for professional examination.**
27 An applicant shall submit a preliminary request for admission to
28 the principles and practice of engineering examination explained
29 in part 1800.2700, subpart 2, by November 1 for the April
30 examination or by June 1 for the October examination. The
31 request shall be made on a form provided by the board and shall
32 include a detailed listing of engineering experience gained.
33 The experience listing shall include the name and mailing
34 address of the applicant's supervisor for each period of
35 employment. The board shall verify listed experience by sending

1 an employer reference form to each listed supervisor. A
2 transcript of grades showing the date of award of the degree
3 earned shall accompany the completed form, unless previously
4 submitted. Upon approval of the preliminary request by the
5 board, the applicant will be so notified and provided formal
6 application materials.

7 Subp. 3. **Formal application for professional examination.**

8 An applicant shall submit a formal application for admission to
9 the principles and practice of engineering examination by
10 January 2 for the April examination or by August 1 for the
11 October examination. Application shall be made on a form
12 provided by the board and shall include one signed copy of board
13 rules of professional conduct and a fee as specified in part
14 1800.0500, subpart 5, item B, subitem (2).

15 Subp. 4. **Obtaining application material.** Application

16 materials may be obtained by calling or writing the board office.
17

18 **REPEALER.** Minnesota Rules, parts 1800.1000, subparts 2, 3,
19 and 4; 1800.1200, subparts 2, 3, and 4; and 1800.3000 are
20 repealed.