CERTIFICATE

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MAY 18 1982 Revisor of Statutes

STATE OF WISCONSIN

SS

EXAMINING BOARD OF ARCHITECTS,)
PROFESSIONAL ENGINEERS,
DESIGNERS AND LAND SURVEYORS

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, William Dusso, administrator of the Bureau of Design Professions, and custodian of the official records of the Examining Board of Architects, Professional Engineers, Designers and Land Surveyors do hereby certify that the annexed rules relating to experience requirements for applicants for registration as professional engineers, were duly approved and adopted by this board on May 5, 1982.

I further certify that said copy has been compared by me with the original on file in this board and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the board at 1400 East Washington Avenue, Madison, Wisconsin, this #8th day of May, A.D. 1982.

William Dusso, Administrator Bureau of Design Professions

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BEFORE THE
STATE OF WISCONSIN
EXAMINING BOARD OF ARCHITECTS,
PROFESSIONAL ENGINEERS, DESIGNERS AND LAND SURVEYORS

Revisor of Statutes Bureau

IN THE MATTER OF RULEMAKING:
PROCEEDINGS BEFORE THE ARCHITECTS,:
PROFESSIONAL ENGINEERS, DESIGNERS:
AND LAND SURVEYORS EXAMINING BOARD:

ORDER OF THE EXAMINING BOARD OF ARCHITECTS, PROFESSIONAL ENGINEERS, DESIGNERS AND LAND SURVEYOERS REPEALING, AMENDING OR

ADOPTING RULES

NOW, THEREFORE, IT IS ORDERED that pursuant to authority vested in the Examining Board of Architects, Professional Engineers, Designers and Land Surveyors in ss. 15.08(5), 227.014 and Chapter 453, Stats., the Examining Board of Architects, Professional Engineers, Desingers and Land Surveyors hereby amends and adopts rules, interpreting s. 443.04, Stats., as follows:

Section A-E 1.17 of the Wisconsin administrative code is repealed and recreated to read:

A-E 1.17 ENGINEERING EXPERIENCE. To qualify as satisfactory experience in engineering work for the purpose of meeting requirements of s. 443.04, Stats., an applicant's experience shall include the application of engineering principles and data and shall demonstrate an applicant's competence to do engineering work. This experience shall be acquired in the areas of engineering practice listed below or in other areas of engineering practice or academic course work which in the opinion of the board provides the applicant with a knowledge of engineering principles and data at least equivalent to that which would be acquired by experience in the areas of practice listed. An applicant need not acquire experience in all areas listed.

(1) RESEARCH AND DEVELOPMENT

- (a) Problem identification, including consideration of alternative approaches to problem solving;
- (b) Planning, including selecting a theorectical or experimental approach;
- (c) Execution of plan, including completing design calculations;
- (d) Interpreting and reporting results, including:
 - 1. Evaluating project feasibility studies,
 - 2. Analyzing research and development data,
 - 3. Producing interpetive reports,
 - 4. Formulating conclusions and recommendations, and
 - 5. Producing final reports.

(2) DESIGN

- (a) Problem identification, including:
 - 1. Identifying design objectives,
 - 2. Identifying possible desing concepts or methods,
 - 3. Selecting methods to be employed in consideration of aesthetics, cost, and reliability,
 - 4. Defining performance specifications and functional requirements, such as materials, energy balances and environmental considerations,

- 5. Formulating conceptual design specifications, and
- 6. Defining physical properties of all key materials.
- (b) Planning, including defining safety health and environmental constraints.
- (c) Execution of plan, including:
 - 1. Developing design concepts,
 - 2. Conducting feasibility studies,
 - 3. Evaluating design and design methods,
 - 4. Solving design problems,
 - 5. Preparing designs, layouts and models,
 - 6. Selecting materials and components,
 - 7. Conducting value analysis of design,
 - 8. Prodcing final designs,
 - 9. Preparing supporting technical information,
 - 10. Preparing detailed working drawings,
 - 11. Preparing specifications and data sheets, and
 - 12. Interacting with engineers from other areas of work, such as research and development and construction.
- (d) Interpreting and reporting results, including:
 - 1. Evaluating design for conformity to specifications,
 - 2. Evaluating design solutions for efficiency, economic and technical feasibility and economic alternatives,
 - 3. Evaluating design impact on public health, safety and welfare,
 - 4. Evaluating design solution for adherence to laws and codes,
 - 5. Evaluating product liability risk,
 - 6. Reviewing designs with clients or management, and
 - 7. Preparing final reports.
- (e) Implementation of results, including interacting with engineers from other disciplines of engineering.

(3) CONSTRUCTION

- (a) Problem identification, including checking working drawings and specifications; and
- (b) Execution of plan, including:
 - 1. Consulting with designers, and
 - 2. Identifying and requesting design changes.
- (4) MANUFACTURING, PRODUCTION AND OPERATIONS
 - (a) Planning, including:
 - 1. Proposing design or methods improvement, and
 - 2. Planning operational processes and strategies.
 - (b) Execution of plan, including:
 - 1. Preparing equipment, system and process specifications, and
 - 2. Determining feasibility of new or improved products, systems and processes.
 - (c) Interpreting and reporting results, including preparing final reports.
- (5) MAINTENANCE
 - (a) Problem identification, including determining causes of equipment, structures or schedule failures; and
 - (b) Interpreting and reporting results, including reporting the causes of equipment and structures failure.

- (6) ADMINISTRATION AND MANAGEMENT, INCLUDING EXECUTION OF PLAN BY COMMUNICATING WITH OTHERS.
- (7) OTHER ENGINEERING TASKS
 - (a) Conducting systems analysis or operations research; and
 - (b) Serving as a consultant or specialist to individual or business clients.

The rule amendment contained in this order shall take effect on the first day of the month following publication in the Wisconsin administrative register, pursuant to s. 227.026, Stats.

Dated this 13th day of May, 1982.

By Owen Ayres, Chairman

Examining Board of Architects, Professional Engineers, Designers and Land Surveyors

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