

5711 Summerset Drive  
Midland, MI 48640  
April 18, 1983

PRINCIPAL STAFF			
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Mr. James Keppler, Regional Administrator  
Nuclear Regulatory Commission, Region III  
Office of Inspection and Enforcement  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Over the past couple of months, a man, who used to work on the Midland nuclear plant, has called me several times to give me information that he believes is very important to relay, not only to you, but to our Attorney-General Frank Kelley.

He will not provide an affidavit to the Government Accountability Project on these matters because he does not believe his anonymity can be adequately protected. He is now working for a Midland subcontractor, as I understand it.

His concern is about the many unqualified people there are at the plant site in jobs of critical importance to safety.

Since I notice in the testimony of Ron Cook, the resident inspector, his frequent mention of poor installation and even his requests to see the qualifications of workers because of poor workmanship, I believe there may be merit in these facts that I have been given over the phone or sent in the mail.

He gave me names of people he worked with who were not qualified for their assignments. They all worked for Bechtel or Bechtel subcontractors. These include: Leo Davis--no Michigan engineering registration and no field experience who worked on systems requiring engineering. He's not sure he has a degree of any kind. Dick Soderholm--no Michigan engineering registration, little field experience, worked in procurement; Clark Ash--has a degree (not sure in what), no Michigan engineering registration, little field experience, worked in procurement; Ed Entrokin--has no degree, is not registered as engineer in Michigan, field experience amounts to 2 or 3 years with Bechtel. The sub-contract department under Ed Entrokin had design authority--the balance of sub-contracts did not have design authority.

According to my informant, engineering design authority was delegated to Zack by Bechtel. Zack also did not have qualified people for design work they were doing. People without adequate training were designing duct work, or pipe hangers and brackets.

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Soils work was subcontracted by Bechtel.

Also, he stated that someone by the name of Cannoni was the subcontractor for soil compaction and he was also given subcontract for part of the underpinning of sinking buildings.

He claims that all work on any construction project beyond a certain limited size must be done as a Michigan registered engineer or architect.

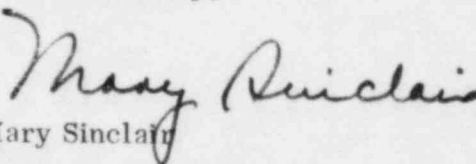
He gave me the following citation from Michigan Compiled Laws 338.551-- Architects, Engineers, Surveyors, Article 20, Act 299, Public Acts of 1980 p. 902-7, defines the role of licensed engineers and architects--does not give any exception to Federal activity. Any building structure must be designed, planned and materials and supplies inspected under direct supervision of a licensed engineer.

He told me that a very good welder quit the project recently because the scheduling was so erratic. One day he would have an apprentice assistant, the next day a journeyman. He was forced to repair continually what was done. He said the Bechtel management here was the poorest he had seen anywhere and he couldn't take it anymore.

The informant also sent me a sketch of management responsibility, rate and pay schedule of contractors for Bechtel and a copy of Article 20, Act 299, PA of 1980 on Architects, Engineers and Surveyors. These materials are enclosed.

I hope your office will investigate these matters to protect the public health and safety of the people of this area.

Yours sincerely,

  
Mary Sinclair

cc: Attorney-General Frank Kelley  
Senator Carl Levin  
Senator Don Riegle  
Congressman Don Albosta

5711 Summerset Drive  
Midland, MI 48640  
April 18, 1983

Attorney-General Frank Kellev  
525 West Ottawa  
Law Building, 7th Floor  
Lansing, MI 48913

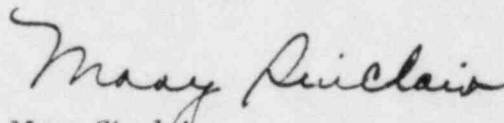
Dear Attorney-General Frank Kelley:

Enclosed is a letter to Mr. James Keppler, director of Region III of the Nuclear Regulatory Commission, in which I describe certain facts that were disclosed to me on the phone by a person who prefers to remain anonymous. He also sent certain materials and supporting items in the mail which are also enclosed.

I believe your office has the responsibility to enforce the law requiring Michigan registration of engineers, etc. responsible for design, construction and materials of construction projects.

I hope you will give this matter your attention.

Yours sincerely,

  
Mary Sinclair

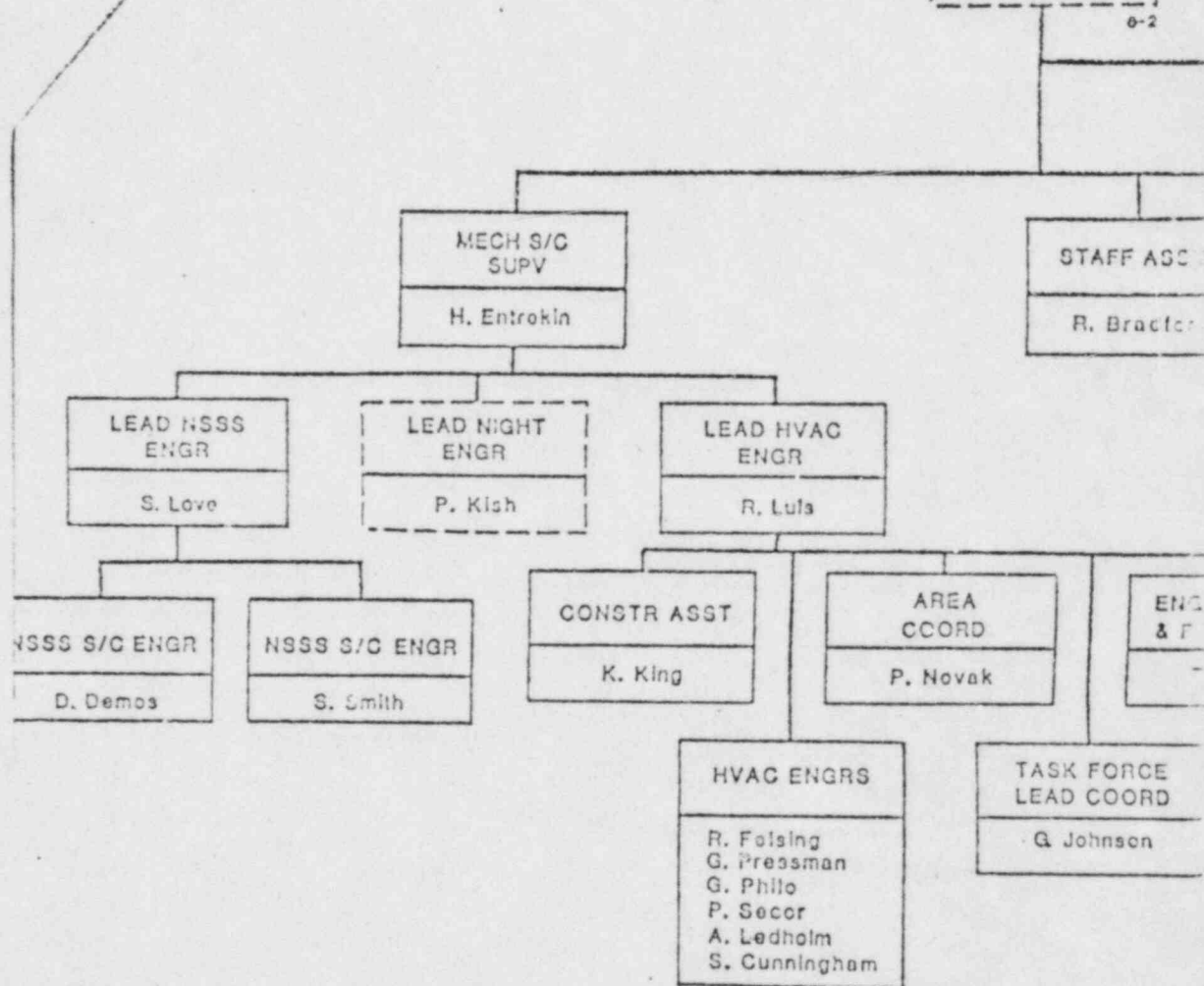
Enclosures

L. E. Davis

R. Soderholm

FIELD SUBCONTRACT ADMIN SUPV
R. C. Ash

0-2



NO	CD	REV
7220	6-2 SUBCONTRACTS	7

## 2. COMPENSATION

### 2.1 PROFESSIONAL SERVICES

Contractor shall be paid for service in accordance with the following rate schedule for all time spent on the project by professional and technical personnel of the designated classification accepted by Bechtel.

<u>Classification</u>	<u>Straight Time/Hr</u>	<u>Overtime/Hr</u>	
Principal	\$70.00	\$70.00	
Associate Principal	\$66.00	\$66.00	
Senior Associate	\$64.00	\$64.00	
Associate	\$62.00	\$62.00	
Engineering Supr.	\$60.00	\$75.00	* per diem ?
Senior Lead Engineer	\$58.00	\$72.50	* r.t. airfare ?
Senior Engineer	\$54.00	\$67.50	* BPC overhead !
Staff Engineer/	\$52.00	\$65.00	* BPC profit 1
Senior Technician Eng.	\$46.00	\$57.50	
Assistant Engineer	\$42.00	\$52.50	
Senior Draftsman	\$40.00	\$50.00	
Draftsman/Technician	\$38.00	\$47.50	
Junior Draftsman	\$32.00	\$40.00	
Technical Typist/	\$22.00	\$27.50	
Engineering Aide			
Secretary	\$13.00	\$16.25	

The rates include salary, overhead, fee, benefits, vacation allowance, sick leave, holiday pay, taxes, and insurance, and all other associated manhour costs.

Specified rates and classification for each Contractor personnel assigned shall be submitted in writing to the authorized Bechtel representative. Bechtel will be notified prior to changing classification of any Contractor personnel above Senior Draftsman.

2.1.1 Contractor will only be reimbursed for work actually performed. Contractor personnel will not be reimbursed for days not worked, except as specified in paragraph 2.1.4 below, including, but not limited to, sick leave, vacations, holidays and travel time.

All work assignments by Contractor must be authorized in advance by Bechtel. Contractor will not be reimbursed for services rendered which are not authorized. Contractor will submit weekly time worked verification for acceptance by designated Bechtel Representative.



## U.S. Dollar Payroll

Effective: 1/3/81

Supersedes revision dated 7/5/80

Salary Grade	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile
	Minimum	25% Midpoint	75%	Maximum
21	\$ 1,305	\$ 1,500	\$ 1,695	\$ 2,090
22	1,460	1,680	1,895	2,335
23	1,640	1,890	2,135	2,625
24	1,865	2,145	2,425	2,985
25	2,135	2,455	2,775	3,415
26	2,440	2,810	3,175	3,905
27	2,780	3,200	3,615	4,450
28	3,095	3,560	4,025	4,955
29	41,100 (3,425)	47,200 (3,938)	53,400 (4,450)	59,600 (4,967)
30	45,900 (3,825)	52,800 (4,400)	59,700 (4,975)	66,600 (5,550)
31	51,500 (4,292)	59,300 (4,942)	67,000 (5,584)	74,700 (6,225)
32	57,500 (4,792)	65,100 (5,509)	74,700 (6,225)	83,300 (6,942)
				92,000 (7,657)

Monthly equivalents in parentheses for salary grades 29-32.

# ANN ARBOR POWER DIVISION CONSTRUCTION DEPARTMENT

05/02/81

MANAGER OF  
DIVISION  
CONSTRUCTION

P. K. HANSEN

STAFF  
ASSISTANT

W. A. MYKHOW

CONSTRUCTION  
MANAGER

R. HERMISTON

CONSTRUCTION  
MANAGER

R. W. PETERS

CONSTRUCTION  
MANAGER

P. K. HANSEN

CHIEF  
CONSTRUCTION  
ENGINEER

W. E. BORISCH

CONSTRUCTION  
CONTRACTS MGR

J. M. JEFFERS

CHIEF  
CONSTRUCTION  
QC ENGINEER

D. L. DANIELS

PROJECT  
SUPERINTENDENT

10539 - Belle River  
W. L. POWS

14124 - Fernal II  
R. N. MCKENNEY

14325 - Marble Hill  
N. D. PETERSEN

CONSTRUCTION  
COORDINATORS

10539 - Belle River  
A. T. VERBURG  
J. A. BORDEN  
C. P. LUIS

PROJECT  
SUPERINTENDENT

12030 - Monroe  
O. H. HOLMAN

12447 - Palisades  
H. M. VIERKA

11185 - Duane Arnold  
C. L. NIELSEN

CONSTRUCTION  
COORDINATORS

12447 - Palisades  
S. G. GRANT

PROJECT  
SUPERINTENDENT

7220 - Midland  
L. E. DAVIS

CONSTRUCTION  
COORDINATORS

7220 - Midland  
W. H. NIELSEN

TRAINING  
COORDINATOR

WM. D. LEONARD

CONTRACTS

R. W. BAILEY  
T. H. LEE  
C. E. MCINTOSH

CONSTR QUALITY  
CONTROL

STAFF

R. A. YONEKAWA

\* PROJECT QUALITY  
CONTROL ENGINEERS

12447 - Palisades

J. HURON

7220 - Midland

E. SMITH

\* QUALITY CONTROL  
ENGINEERS

14124 - Fernal II

L. CAMPBELL  
G. HOFFMAN  
R. QUICK

\* JOINT ASSIGNMENT

ARTICLE 20  
ACT 200: 20 of 1999

Sec. 2001. As used in this article:

(a) "Architect" means a person who, by reason of knowledge of mathematics, the physical sciences, and the principles of architectural design, acquired by professional education and practical experience, is qualified to engage in the practice of architecture.

(b) "Firm" means a sole proprietorship, partnership, or corporation through which a person licensed under this article offers or provides a service to the public.

(c) "Land surveyor" means a person who, by reason of knowledge of law, mathematics, physical sciences, and techniques of measuring land acquired by professional education and practical experience, is qualified to engage in the practice of land surveying.

(d) "Person" means a natural person.

(e) "Person in responsible charge" means a person licensed under this article who determines technical questions of design and policy; advises the client; supervises and is in responsible charge of the work of subordinates; is the person whose professional skill and judgment are embodied in the plans, designs, plats, surveys, and advice involved in the services; and who supervises the review of material and completed phases of construction.

(f) "Practice of architecture" means professional services, such as consultation, investigation, evaluation, planning, design, or review of material and completed phases of work in construction, alteration, or repair in connection with a public or private structure, building, equipment, works, or project when the professional service requires the application of a principle of architecture or architectural design.

(g) "Practice of land surveying" means the surveying of an area for its correct determination, description, and conveyancing, or for the establishment or reestablishment of a land boundary and the plotting of land and subdivisions of land.

(h) "Practice of professional engineering" means professional services, such as consultation, investigation, evaluation, planning, design, or review of material and completed phases of work in construction, alteration, or repair in connection with a public or private utility, structure, building, machine, equipment, process, work, or project, when the professional service requires the application of engineering principles or data.

(i) "Principal" means a sole proprietor, partner, or the president, vice-president, secretary, treasurer, or director of a corporation.

(j) "Professional engineer" means a person who, by reason of knowledge of mathematics, the physical sciences, and the principles of engineering, acquired by professional education and practical experience, is qualified to engage in the practice of professional engineering.

(k) "Services" means professional service offered or provided by an architect in the practice of architecture, a professional engineer in the practice of professional engineering, or a land surveyor in the practice of land surveying.

Sec. 2002. (1) The boards of architects, of professional engineers, and of land surveyors are created.

(2) The board of architects consists of 5 architects, 1 professional engineer who is a member of the board of professional engineers, and 1 land surveyor who is a member of the board of land surveyors. Two members of the board shall represent the general public.

(3) The board of professional engineers consists of 5 professional engineers, 1 architect who is a member of the board of architects, and 1 land surveyor who is a member of the board of land surveyors. Two members of the board shall represent the general public.

(4) The board of land surveyors consists of 5 land surveyors, 1 professional engineer who is a member of the board of professional engineers, and 1 architect who is a member of the board of architects. Two members of the board shall represent the general public.

(5) Of the initial members of the board of architects, the terms of 3 of the members, including 2 of the members who are licensed architects and 1 of the members representing the general public, shall be 4 years; the term of 1 of the members who is a licensed architect shall be 3 years; the term of 1 of the members who is a licensed architect shall be 2 years; and the terms of 2 of the members, including 1 of the members who is a licensed architect and 1 of the members of the general public, shall be 1 year. The term of the member who is a licensed professional engineer shall coincide with that member's term on the board of professional engineers. The term of the member who is a licensed land surveyor shall coincide with that member's term on the board of land surveyors.



(6) Of the initial members of the board of professional engineers, the terms of 3 of the members, including 2 of the members who are licensed professional engineers and 1 of the members representing the general public, shall be 4 years; the term of 1 of the members who is a licensed professional engineer shall be 3 years; the term of 1 of the members who is a licensed professional engineer shall be 2 years; and the terms of 2 of the members, including 1 of the members who is a licensed professional engineer and 1 of the members of the general public shall be 1 year. The term of the member who is a licensed architect shall coincide with that member's term on the board of architects. The term of the member who is a licensed land surveyor shall coincide with that member's term on the board of land surveyors.

(7) Of the initial members of the board of land surveyors, the terms of 3 of the members, including 2 of the members who are licensed land surveyors and 1 of the members representing the general public, shall be 4 years; the term of 1 of the members who is a licensed land surveyor shall be 3 years; the term of 1 of the members who is a licensed land surveyor shall be 2 years; and the terms of 2 of the members, including 1 of the members who is a licensed land surveyor and 1 of the members of the general public, shall be 1 year. The term of the member who is a licensed professional engineer shall coincide with that member's term on the board of professional engineers. The term of the member who is a licensed architect shall coincide with that member's term on the board of architects.

(8) A licensee who serves on more than 1 board created under this article, and who resigns, is disabled, or is removed for cause by the governor from the board under which he or she is licensed, shall no longer represent that board on any other board created under this article.

Sec. 2003. A joint meeting of the boards created by this article shall be held at least once annually at a time and place determined by the department. Two or more of the boards created by this article may meet jointly at the call of the chairperson of a board created by this article.

Sec. 2004. (1) An applicant for examination for licensure under this article shall be of good moral character and shall have had not less than 8 years of professional experience in architectural, engineering, or land surveying work satisfactory to the appropriate board, including not more than 6 years of education satisfactory to the appropriate board and shall meet the following educational requirements:

(a) For architecture, a first professional degree or further degree in architecture. However, until July 1, 1984, a 4-year, preprofessional baccalaureate degree shall be accepted in lieu of the first professional degree.

(b) For professional engineering, a baccalaureate degree in engineering acceptable to the board of professional engineers or a related degree with courses acceptable to the board.

(c) For land surveying, a degree in land surveying or a related degree with land surveying courses acceptable to the board of land surveyors.

(2) An applicant meeting the appropriate requirements of subsection (1) who files an application for examination for licensure, upon payment of the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979, as amended, being section 338.2213 of the Michigan Compiled Laws shall be granted an examination for licensure as an architect, professional engineer, or land surveyor.

(3) An examination for licensure under this article as an architect, a professional engineer, or land surveyor shall be held at least once a year at a time and place determined by the department.

(4) An applicant for examination for licensure who successfully completes studies required for the granting of a degree required by subsection (1) may take a part of the examination which tests the applicant's understanding of the theory pertaining to his or her profession. An applicant who passes that part of the examination is not required to repeat that part of the examination regardless of when the applicant takes the examination required by subsection (5).

(5) An applicant who satisfies the requirements of subsection (1) shall take the examination which tests the applicant's qualifications to practice as an architect, professional engineer, or land surveyor.

(6) An applicant for examination for licensure who fails an examination required by this section may apply for reexamination 6 months after receiving notice of his or her failure. An applicant for reexamination for licensure under this subsection shall pay the fee prescribed by section 13 of Act No. 152 of the Public Acts of 1979, as amended.

(7) Notwithstanding section 316(3), an alternative form of testing shall only be given to a person with a mental or physical handicap which tests the applicant's understanding of the theory and the applicant's qualifications to practice as an architect, professional engineer, or land surveyor as required in this section.

Sec. 2005. The department shall mail written notice to an applicant of the applicant's grades on each part of an examination. On written request by an applicant filed with the department within 30 days after notice of the applicant's grades has been mailed to the applicant, the department shall mail to the applicant within a reasonable time the comments of the board on those parts of the examination which the applicant failed to pass.

Sec. 2006. (1) An application for licensure under this article shall contain references made under oath showing the applicant's education and a detailed verifiable summary of the applicant's technical work; and contain not less than 5 references, of whom 3 or more shall be licensees in the profession for which the applicant is seeking licensure who have personal knowledge of the applicant's professional experience.

(2) A license shall be issued after the applicant has passed the examination prescribed in section 2004.5 and has paid the fee prescribed in section 15 of Act No. 152 of the Public Acts of 1979. If the department denies the issuance of a license to an applicant, the fee deposited shall be retained as an application fee.

Sec. 2007. A licensee, upon being licensed, shall obtain a seal authorized by the appropriate board and bearing the licensee's name and the legend indicating either "licensed architect", "licensed professional engineer", or "licensed land surveyor". However, a seal existing on the effective date of this article with the legend "registered architect", "registered professional engineer", or "registered land surveyor" is acceptable if a seal is required under state law. A plan, specification, plat, or report issued by a licensee shall be sealed when filed with a public authority. A document shall not be sealed after the license of the licensee named on the document has expired or is suspended or revoked unless the license is renewed, reinstated, or reissued.

Sec. 2008. (1) A plan, plat, drawing, map, and the title sheet of specifications, an addendum, bulletin, or report or, if a bound copy is submitted, the index sheets of a plan, specification, or report, if prepared by a licensee and required to be submitted to a governmental agency for approval or record, shall carry the embossed or printed seal of the person in responsible charge.

(2) If the overlapping of the professions of architecture and engineering is involved in a project, a licensed architect or licensed professional engineer who seals the plans, drawings, specifications, and reports may perform services in the field of the other practice if the services are incidental to the architectural or engineering project as a whole.

(3) A licensee shall not seal a plan, drawing, map, plat, report, specification, or other document not prepared by the licensee or under supervision of the licensee as the person in responsible charge.

Sec. 2009. A license granted under this article shall be renewed on a date determined by the department. A license issued under this article shall be renewed upon payment of the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979 and a demonstration of continuing professional competence as shall be required and evaluated by the board.

Sec. 2010. (1) A firm may engage in the practice of architecture, professional engineering, or land surveying in this state, if not less than 2/3 of the principals of the firm are licensees.

(2) However, nonlicensed principal and the principal's firm shall apply for and receive an approval from the department to engage in the practice of architecture, professional engineering, or land surveying, if the conduct of the firm and its principals comply with rules promulgated by the department.

(3) Upon request by the department, a firm shall report to the department the names and addresses of its principals, persons in responsible charge, unlicensed principals, and any other information the department considers necessary.

(4) A firm shall employ a person in responsible charge in the field of professional service offered at each place of business in this state where a service is offered by the firm, except at a field office which provides only a review of construction.

Sec. 2011. (1) The state or a county, city, township, village, school district, or other political subdivision of this state shall not engage in the construction of a public work involving architecture or professional engineering unless all of the following requirements are met:

(a) The plans and specifications and estimates have been prepared by a licensed architect or licensed professional engineer.

(b) The review of the materials used and completed phases of construction is made under the direct supervision of a licensed architect or licensed professional engineer.

(c) Each survey of land on which the public work has been or is to be constructed is made under the supervision of a licensed land surveyor.

(2) This section does not apply to a public work for which the contemplated expenditure for the completed project is less than \$15,000.00.

Sec. 2012. The following persons are exempt from the requirements of this article:

- (a) A professional engineer employed by a railroad or other interstate corporation, whose employment and practice is confined to the property of the corporation.
- (b) A designer of a manufactured product, if the manufacturer of the product assumes responsibility for the quality of the product.
- (c) An owner doing architectural, engineering, or surveying work upon or in connection with the construction of a building on the owner's property for the owner's own use to which employees and the public are not generally to have access.
- (d) A person not licensed under this article who is planning, designing, or directing the construction of a residence building not exceeding 3,500 square feet in calculated floor area. As used in this subdivision and section 2014(e), "calculated floor area" means that portion of the total gross area, measured to the outside surfaces of exterior walls intended to be habitable, including a heater or utility room, but not including a crawl space; an unfinished and nonhabitable portion of a basement or attic; or a garage, open porch, balcony, terrace, or court.
- (e) A person who is licensed to engage in the practice of architecture, professional engineering, or land surveying in another state while temporarily in this state to present a proposal for professional services.

Sec. 2013. The department, upon application, and the payment of the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979, as amended, shall issue a license to a person who holds an appropriate certificate of qualification or registration issued to the person by proper authority of a board of registration examiners of another state or national council acceptable to the department and the board, if the requirements for the registration of architects, professional engineers, or land surveyors under which the certificate of qualification or registration was issued are determined to be equivalent by the board. The determination shall be made by the appropriate board. A board under this article shall not issue a temporary license as provided under section 213.

Sec. 2014. A person is subject to the penalties set forth in article 6 who commits 1 of the following:

- (a) Uses the term "architect", "professional engineer", "land surveyor", or a similar term in connection with the person's name unless the person is licensed in the appropriate practice under this article.
- (b) Presenting or attempting to use as the person's own the license or seal of another.
- (c) Attempting to use an expired, suspended, or revoked license.
- (d) Using the words "architecture", "professional engineering", "land surveying", or a similar term in a firm name without authorization by the appropriate board.
- (e) Submitting to a public official of this state or a political subdivision of this state for approval, a permit or a plan for filing as a public record, a specification, a report, or a land survey which does not bear 1 or more seals of a licensee as required by this article. This subdivision does not apply to a public work costing less than \$15,000.00 or a residential building containing not more than 3,500 square feet of calculated floor area.