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# UNIVERSITY OF ALASKA FAIRBANKS



## Mechanical Engineering

559 Duckering • Fairbanks, Alaska 99775-0660 • (907) 474-7209

November 30, 1990

Representative Niilo Koponen  
119 North Cushman Street  
Suite 207  
Fairbanks, Alaska 99701

Dear Representative Koponen:

The faculty of the Schools of Engineering at University of Alaska Fairbanks ask for your help during this coming legislative session in revising AS08.48 concerning Architects, Engineers and Land Surveyors as prescribed on the attached page. As now written, it provides no public good with respect to engineering education and only serves to tremendously complicate the difficult and costly process of hiring and retaining new engineering faculty. For additional background, we are enclosing a copy of a letter we sent to you last April.

Of the permanent full-time engineering faculty at UAF, 37 out of 44 support this amendment. In the School of Engineering, none of the 25 permanent faculty supported HB 182 which created this problem for us. We are dismayed that no one bothered to contact us about this bill before its passage. At national meetings of department heads in Electrical and Mechanical Engineering, the sentiment has essentially been unanimous against requiring engineering faculty to be registered.

At the 1990 regional department heads meetings for Mechanical Engineering across the U.S., all 12 regions voted no to the idea of requiring faculty teaching engineering design courses to be registered. For 11 of the 12 regions, the vote was either unanimous or 20 to 1 against requiring the P.E. The department heads from regions IV - XI passed a resolution 16 to 0 with 4 abstentions that the National Society for Professional Engineering (NSPE) stop asking the M.E. Department Heads to take action on professional registration.

As we have to compete for qualified faculty in a national market, we do not want to further compound our difficult recruiting task with an additional impediment. We also have our own rigorous internal evaluation procedure plus an external periodic review by the National Accreditation Board for Engineering and Technology (ABET) evaluation team. This helps assure the competency of our faculty so that we graduate qualified engineers. As an example of our success, the pass rate of our students taking the Engineer in Training (EIT) exam is around 90%. The national average pass rate is 71%.

A professional working for an engineering firm is not required by State law to become registered as a condition of employment. In fact, some of our largest


**Mechanical Engineering**

Page Two  
Representative Niilo Koponen  
November 30, 1990

employers have only a small minority of their engineers registered as professional engineers. Many engineering faculty perform research and develop new courses or portions of courses in specialized fields. There may not be an expert available to supervise such work. This is all part of being at the forefront of knowledge and advancing the state of the art. It is unreasonable to expect such faculty to work under the "direct" supervision of another faculty member, who has a P.E., in developing an advanced engineering course. This is the only way such faculty could legally be allowed to teach upper level engineering courses under the current law.

Three of us discussed these issues with the Board of Registration of Architects, Engineers and Land Surveyors at their November 29 meeting in Anchorage. At the close of that meeting, the Board voted unanimously not to oppose our offering this attached amendment. We now ask for your help in rectifying this unacceptable situation.

Yours truly,



Dr. Ron Johnson, P.E.  
Department Head  
Mechanical Engineering  
School of Engineering

RJ/wr  
Attachment



UNIVERSITY OF ALASKA FAIRBANKS

School of Engineering  
539 Duckering Bldg. • Fairbanks, Alaska 99775-0660

27 March, 1991

Representative Niilo Koponen  
P.O. Box V  
Juneau, Alaska 99811

Dear Representative Koponen:

I am writing to express my **STRONG** support for HB 158 that would repeal the requirement the university professors be licensed Professional Engineers (P.E.) to teach upper division courses. Such a requirement would have long lasting detrimental effects on the University, while serving no functional purpose.

A Professional Engineer's stamp (please see bottom of page two) is the State's assurance that a design, which will be constructed and subject the public to the design, has been checked by a qualified individual. However, one does not have to be licensed to be qualified. When an Engineer uses a Professional Engineer (P.E.) Stamp, he/she is certifying that the design and the drawings for the design have been reviewed. Using a P.E. stamp means that the engineer assumes personal and professional liability - **it does not indicate that the licensed Professional Engineer is any more qualified than an Engineer who is not registered - it only serves as an assumption of liability and the State's approval to assume that liability.**

At the University of Alaska, a candidate's credentials are reviewed extensively before an individual is hired. This review includes examination of the applicant's education, teaching and professional experience. Only well qualified, experienced engineers are hired to teach engineering courses. This system is used in every other state at every major University. As a result of our rigorous review and high standards for employment as a tenure-track faculty member, the University of Alaska Fairbanks has a highly qualified, professional faculty in the School of Engineering.

What then, is the impetus for mandating professional registration? The national board responsible for accrediting engineering schools in this country (ABET) does not even require licensing for engineering professors. The concept of mandating registration is supported and promoted by only a few individuals within the faculty. They somehow feel that registration would advance the professional nature of the school. This is not the case. Experienced engineers and well qualified professors advance the quality and prestige of our school, not state registration. We have many highly experienced engineers, who have practiced in the consulting world, who are not licensed Professional Engineers. In business and industry, only one PE is required for a project that employs hundreds of engineers. That one PE accepts the responsibility for overall review and personal and professional liability for the design when constructed.

The activities of the engineering faculty at UAF does not include design of structures for construction. While we teach design principles that will ultimately be employed in construction, the design engineer who stamps the drawing for construction needs to be licensed by the state - not the professor who taught the course. Remember, registration says nothing about an individual's actual qualifications, it only indicates that the State has recognized this individual's right to accept liability and sanctions her/his review.

It is also important to note that the requirement for registration will not affect me - I am already registered in both Alaska and California. I am registered because I practice engineering outside the University as a private consultant, and I did so in California before I moved to Alaska. My support for HB 158 is based in a deep respect for my colleges and a recognition of the importance of Professional Registration for Engineers doing design in the field. However, my registration does nothing to enhance my ability to teach. It is my professional experience I draw upon when teaching advanced courses - not the State's approval for me to review designs as embodied in my Professional Engineer's licence.

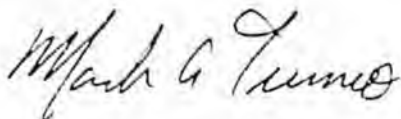
The only effect mandating registration for engineering Professors will have is to destroy the University's ability teach engineering. It is a meaningless requirement that has already resulted in the Department of Commerce and Economic Development threatening the University with a cease and desist order to stop us from teaching upper division engineering classes.

If House Bill 158 is not passed this session, the Legislature can expect that next year the University of Alaska Fairbanks will not be able to fulfill its duty to educate the next generation of engineers for this State - not because we are not qualified or able to do so - but because a vocal minority has succeeded in imposing a meaningless and unnecessary bureaucratic requirement on the faculty.

The long-term effects of failing to pass HB 158 are even more devastating: Why should highly qualified engineers who are not registered, as many are because registration is not required to practice engineering, only to officially review and stamp drawings, come to Alaska to teach if the state is going to impose a draconian and unnecessary registration requirement? The University of Alaska is at a cross-road. We have the opportunity to continue to move forward, advance the economic base of the state, and increase the national and international prestige of this institution through continued research, professional teaching, and a highly qualified faculty and staff. However, if HB 158 is not passed, we will be thrown back to a time when the School of Engineering could not attract and retain qualified engineering professors and could not offer the necessary slate of upper-division engineering courses. Alaska will loose some of its most talented and promising individuals to schools outside the state simply because a few individuals wanted Professors to be registered.

Please avoid this scenario and pass HB 158 with all due haste.

Sincerely,



Mark A. Tumeo, P.E., Ph.D.  
Assistant Professor, Department of Civil Engineering

Civil Engineering



UNIVERSITY OF ALASKA FAIRBANKS

School of Engineering  
539 Duckering Bldg. • Fairbanks, Alaska 99775-0660

March 26, 1991

Alaska State Legislature  
P.O. Box V  
Juneau, AK 99811

Dear Rep. Koponen

I am writing to you to express my support for HB 158. I am currently employed as an Assistant Professor of Civil Engineering at the University of Alaska Fairbanks (UAF). Prior to my employment at UAF I was a graduate student at Colorado State University (CSU) where I received both my Master's and Ph.D in Civil Engineering. Prior to my attendance at CSU I was employed for three years as a DESIGN STRUCTURAL ENGINEER at Stone and Webster Engineering Corporation - a large consultant to the Utility Industry.

During my tenure at Stone and Webster, I did not find it necessary to obtain my Professional Engineering License as I was not required to stamp design drawings. Only a single structural engineer per job was required to stamp design drawings. In many cases, this individual was in a strictly administrative role on the job and did not participate in actual design efforts. I think you will find that this situation is common among the larger consultants throughout the country and locally throughout the State of Alaska.

This does not mean that I do not support licensing of Professional Engineers - I strongly urge my students to become licensed and intend to obtain my P.E. License in the near future. It is only that I feel that it is inappropriate for legislation requiring my licensing to stand while I am not actively engaged in the preparation of stamped, design drawings. I fully believe that my teaching duties constitute the practice of engineering just as my design work at Stone and Webster was the practice of engineering. A license was not required then because I did not stamp design drawings. I do not accept the contention that a P.E. License is a requirement now to perform my duties at UAF since I am not involved in the preparation of stamped, design drawings.

There are a number of negative "trickle down" effects associated with the currently enacted legislation that will have a severely unfavorable impact on the University of Alaska system. These are too numerous to recount here and I am sure that you are already aware of many of them. I would merely like to ask "Why does Alaska need the legislation requiring registration of Faculty? Are the Faculty of MIT, PURDUE and GEORGIA TECH, who are not required to be licensed, somehow inferior to Faculty at Alaskan Institutions?"

Thank you for your support of HB 158 and your continuing efforts on behalf of the University of Alaska in other matters.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Curtis".

Kevin C. Curtis, Ph.D  
Assistant Professor  
Department of Civil Engineering  
University of Alaska Fairbanks

APR 24 1991

907-474-7137  
FAX 907-474-6087

Electrical Engineering Department

# UNIVERSITY OF ALASKA FAIRBANKS



School of Engineering • 539 Duckering Building • Fairbanks, Alaska 99775-0660

April 18, 1991

Honorable David Finkelstein, Chairman  
Labor & Commerce Committee  
Alaska State Legislature  
P.O. Box V  
Juneau, AK 99811

Dear Representative Finkelstein:

I am writing to express my strongest possible support for House Bill No. 158.

While I am a registered professional engineer and encourage electrical engineering faculty to become registered, I believe that legally requiring registration of engineering faculty will have a severely negative impact on the School of Engineering academic programs. Two prominent reasons follow.

1) It is extremely difficult to hire and retain excellent engineering faculty even without the registration requirement. The University of Alaska must compete nationally for candidates who are required to have a Ph.D. in their field as well as first-rate teaching, research and verbal and written communication skills. The available talent pool is initially very small and many engineering Ph.D. graduates elect the higher salaries and other benefits typically available in the non-academic engineering world.

Adding the legal requirement of registration to the above expectations (which, I believe, are much more difficult to meet) is insulting to a truly qualified candidate for an engineering faculty position and would make future recruiting more difficult.

2) If House Bill No. 182, passed in the last legislative session, is not amended by current HB 158, the School of Engineering will be effectively shut down after the December 31, 1991 deadline for faculty registration that was established by HB 182.

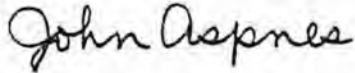
I attended the annual meeting of the national electrical engineering department heads association last spring. Not one of the approximately 150 department heads in attendance spoke in favor of mandatory registration.

There is already rigorous internal examination of engineering academic programs at the University of Alaska Fairbanks (UAF) in addition to a thorough periodic external review by a team of national Accreditation Board for Engineering and Technology (ABET) evaluators. Our programs must meet the same standards as MIT, Stanford, the University of California at Berkeley, and a host of other well-known schools (none of which require professional registration for their engineering faculty).

All B.S. degree candidates in the UAF School of Engineering are required to take the nationally-administered Engineer-in-Training (EIT) examination. The pass rate of our students is typically about 90%. The national average pass rate is just above 70%.

Please help us to continue to provide Alaskans with an opportunity for excellent engineering education. Your efforts to help pass HB 158 will be appreciated by myself and the vast majority of my engineering faculty colleagues.

Sincerely,



John Aspnes, P.E., Ph.D.  
Head, Electrical Engineering Dept.

cc.	Rep. Kevin Parnell	✓ Sen. Drue Pearce
	Rep. Betty Bruckman	Sen. Virginia Collins
	Rep. Dave Donley	Sen. Richard Eliason
	Rep. Ivan Ivan	Sen. Rick Halford
	Rep. Robin Taylor	Sen. Jalmar Kertula
	Rep. James Zawacki	

# UNIVERSITY OF ALASKA FAIRBANKS



## Mechanical Engineering

539 Duckering • Fairbanks, Alaska 99775 • (907) 474-7209

April 23, 1990

Senator Steve Frank  
Room 514, Capitol  
P.O. Box V  
Juneau, Alaska 99811

Dear Senator Frank:

We urge the legislature to revise the recently enacted amendments to AS08.48 concerning Architects, Engineers and Land Surveyors. HB 182 was recently (Feb 2) signed into law by the governor. We are opposed to the latest law because exemption (4), Sec. 08.48.331 of the former law has been omitted. This exemption read: "This chapter does not apply to... (4) an officer or employee of the state practicing architecture, engineering or land surveying as required by that person's official capacity if registration is not required by that person's job description or by AS 38.95.150 or 38.95.160." This exemption is important to the faculty of the Schools of Engineering in Alaska and we ask that it be reinstated with the following changes: insert "faculty" before job description, and delete <or by AS 38.95.150 or 38.95.160>.

The exemption in question allowed the Schools of Engineering to utilize faculty not registered as professional engineers to teach upper division and graduate engineering courses if such registration is not explicitly required by their job descriptions. This provides the University the opportunity to recruit and utilize qualified faculty from other U.S. engineering schools, many of whom are not registered. It also allows us to hire new Ph.D's who may not even be eligible for registration for 3 or more years.

Moreover, the new law specifically requires (Sec. 4., 08.48.255) that those teaching engineering at post secondary institutions become registered within 18 months. It also repeals Sect 08.48.261 of the former law allowing for a waiver by a department head for state employees.

If this new version of the law remains, the only way the Schools of Engineering could employ a non-registered faculty member would be on a temporary basis. This would be a serious impediment to the hiring of top-notch faculty from other U.S. Schools of Engineering if we could otherwise persuade them to teach at UAF. At a March 1990 meeting of Mechanical Engineering Department Heads from the Western Region of the U.S., the vote was 16 to 1 against requiring ME faculty to be registered.

We already have difficulty recruiting engineering faculty because of our non-competitive salary structure and negligibly small equipment and travel budgets. Retention of this law without reinstating exemption (4) and eliminating Sec 08.48.255 would further compound this problem.

We are especially bothered that this bill became law without input from our faculty. We found out about its passage (after the fact) when one of us called the

Mechanical Engineering

Governor's office in Fairbanks to inquire about a summary of HB 182 which appeared in "Alaska Designs," a professional engineering publication in Alaska. We are dismayed that a bill as significant as this for the University of Alaska should pass with none of the Department Heads at UAF nor the Dean of Engineering at UAA being aware of the bill until after its passage.

Two years ago, a similar bill, HB 425, had language deleted from it which would have removed the exemption for licensing of engineering professors. A May 8, 1988 letter from Senator Frank to Dean Vincent Haneman confirms this deletion. Several of us had communicated with our legislators at that time urging that this controversial language be deleted.

After the passage of HB 182 in 1990, Dean Haneman contacted the Board of Registration in Anchorage to urge them to alter their position on the licensing requirement for engineering faculty. We waited for the follow up letter from Board Chair Malcolm Menzies before writing this letter. That follow up letter (dated 3/22/90) only increased our concerns. The next to the last sentence read, in part, "However, to... teach an upper division level course in Alaska, registration is required." One of us, Dr. Ron Johnson, also received a letter from Gov. Cowper (3/30/90) saying that the Dean and other engineering school staff had met with the Board of Registration and that these talks "were very helpful in allaying... concerns with... HB 182." Such is not the case.

Hence, we need your help to rectify this situation by reinstating the modified exemption (4) of Sec 08.48.33F of the former law as discussed in the first paragraph of this letter.

Sincerely,

*Ron Johnson*  
Dr. Ron Johnson, Head  
Department of Mechanical  
Engineering

*Dr. Leroy Hulsey*  
Dr. Leroy Hulsey, Head  
Department of Civil  
Engineering

*John Aspnes*  
Dr. John Aspnes, Head  
Department of Electrical  
Engineering

*Sanjay Sawarkar* CE

*Suyeswar Banerjee*  
*Prasant C. Benerjee* ME  
*Sanjay A. Wadgaonkar* EE  
*Amish Kumar* ME

*John P. ...*  
Associate Dean, SOE

*U.S. Sharma* CI

*Robert C. ...* HEAD  
DEPT. OF MINING + GEOLOGICAL  
ENGINEERING

*Udayadhar Kamath*  
*Shishu Patil*

*Prof. P. C. A.*  
PROF. ENGINEERING, E.E.

*Randall Stomman*, Head  
Dept. of Petroleum Engineering  
*Debedra K. Das*, Mechanical Engineer

# UNIVERSITY OF ALASKA FAIRBANKS



## Mechanical Engineering

539 Duckering • Fairbanks, Alaska 99775 • (907) 474-7209

October 22, 1990

Pat Kalen  
Board of Registration for Architects,  
Engineers and Land Surveyors  
State of Alaska

Dear Pat:

I am sending you this letter to convey to the Board the sentiments of the engineering faculty at UAF regarding HB 182. As you know, I met with the board on Sept. 13, 1990 and then some engineering faculty and you met with Rep. Koponen and selected staff members on Sept. 20. At the close of that meeting, I agreed to query our faculty as to how they felt concerning redefining the practice of engineering as to not include teaching. The results were mixed with a small majority of those voting believing that teaching engineering courses was as much the practice of engineering as many other engineering activities.

As an example, when one runs a computer code to provide data leading to an engineering design, one could just as well run this code as part of teaching a class as well as to complete an engineering project. If one performed this function while working for an engineering firm, he or she would receive credit toward the time required to obtain registration providing he or she was working under the supervision of a P.E. The same should be true for a faculty member. However, we must recognize that many engineering faculty perform research and develop new courses or portions of courses in very specialized fields. There may not be an expert available to supervise such work. This is all part of being at the forefront of knowledge and advancing the state of the art. The professional working for the engineering firm is not required by State law to become a P.E. as a condition of employment. In fact, some of our largest employers have a majority of their engineers not registered as professional engineers.

Hence, our faculty overwhelmingly support amending the current law established under HB 182 as outlined on the attachment. This attachment was part of a letter I distributed to the Board at the Sept. 13, 1990 meeting.

UNIVERSITY OF ALASKA FAIRBANKS

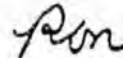
Mechanical Engineering

Page Two  
Pat Kalen  
October 22, 1990

Of our permanent full-time faculty at UAF, 37 out of 44 support this amendment. In the School of Engineering, none of the 25 permanent faculty supported HB 182. At national meetings of department heads in Electrical and Mechanical Engineering, the sentiment has essentially been unanimous against requiring engineering faculty to be registered. We hope you can work with us to amend the law as outlined. We are ready to meet with our legislators and the Governor during the next session to accomplish this.

As we understand, you will discuss this item at your November meeting. Please let us know what transpires.

Yours truly,



Dr. Ron Johnson  
Dept. Head  
Mechanical Engineering  
UAF  
10/22/90

ATTACHMENT

To October 22, 1990 Letter to Pat Kalen

We urge the legislature to revise the recently enacted amendments to AS08.48 concerning Architects, Engineers and Land Surveyors. HB 182 was signed into law by the governor on February 2, 1990. We are opposed to the latest law because exemption(4), Sec. 08.48.331 of the former law has been omitted. This exemption read: "This chapter does not apply to... (4) an officer or employee of the state practicing architecture, engineering or land surveying as required by that person's official capacity if registration is not required by that person's job description or by AS 38.95.150 or 38.95.160." This exemption is important to the faculty of the Schools of Engineering in Alaska and we ask that it be reinstated with the following changes: insert "faculty" before job description, and delete < or by AS 38.95.150 or 38.95.160>.

Moreover, the new law specifically requires (Sec 4., 08.48.255) that those teaching engineering at post secondary institutions become registered within 18 months. We ask that this section be repealed.

*Ron Johnson*  
UAF  
10/22/90

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(f) A corporation authorized to offer architectural, engineering or land surveying services under this chapter, together with its directors and officers for their own individual acts, is responsible to the same degree as the designated individual registered architect, engineer or land surveyor, and must conduct its business without misconduct or malpractice in the practice of architecture, engineering or land surveying as defined in this chapter.

(g) If the board, after a proper hearing, finds that a corporation holding a certificate of authorization has committed misconduct or malpractice, the board shall suspend or revoke the certificate of authorization. The board shall also suspend or revoke the certificate of registration of any registered individual architect, engineer or land surveyor who, after a proper hearing, is found by the board to have participated in committing the misconduct or malpractice.

(h) Drawings, specifications, designs and reports, when issued in connection with work performed by a corporation under its certificate of authorization, shall be prepared by or under the responsible charge of and shall be signed by and shall be stamped with the official seal of a person holding a certificate of registration under this chapter.

(i) [Repealed, § 54 ch 37 SLA 1985.](§ 3 ch 179 SLA 1972; am § 54 ch 37 SLA 1985; am § 3 ch 2 SLA 1990)

Effect of amendments. — The 1990 amendment substituted "Drawings" for "Plans" at the beginning of subsection (h).

**Sec. 08.48.255. Teachers.** (a) A person who is hired by a postsecondary educational institution for a permanent position to teach advanced architectural, engineering, or land surveying courses has 18 months from the date of hire to fulfill the registration requirements of this chapter and may teach the courses during the 18-month period.

(b) A person who is not registered under this chapter and who is hired by a postsecondary educational institution as a visiting teacher for a period of up to one year does not violate the registration requirements of this chapter by teaching advanced architectural, engineering, or land surveying courses at the institution during that year.

(c) This section does not authorize a person to perform architectural, engineering, or land surveying services other than teaching without being registered under this chapter.

(d) In this section, "postsecondary educational institution" has the meaning given in AS 14.48.210. (§ 4 ch 2 SLA 1990)

Effective dates. — Section 4, ch. 2, SLA 1990, which enacted this section, took effect on May 2, 1990.

**KALEN & ASSOCIATES, Inc.:** Engineers & Surveyors

1041 Chena Ridge Road  
Fairbanks, AK 99709  
(907) 479-2628 / 479-2656

Land Surveys  
Mineral Surveys  
Land Planning  
Design

Civil Engineering  
Forensic Expertise  
CADD

May 7, 1991

Rep. Niilo Koponen  
P. O. Box V  
Juneau AK 99811

Ref: Licensing of teachers, HB 158

Dear Niilo:

The Board of Registration for Engineers, Architects and Land Surveyors has asked me to communicate to you their position regarding this subject. As you are no doubt aware, the engineering faculty is at odds with the National Society of Professional Engineers on the importance of registration of engineers. The majority of engineers in the private sector strongly support the notion that teaching of engineering is closely related to practice. In Alaska, this is evidenced by the fact that all graduating engineering students are required to take the Fundamentals of Engineering Examination. I believe that this also makes the student body tend to support registration.

However, some faculty members at the University of Alaska Fairbanks strongly oppose registration of faculty. I think that those who have earned a doctorate in a field of Engineering research feel that they have become full fledged engineers, and should not have to do anything more, such as obtaining registration. In addition, the faculty emphasizes that the six month time provision for acquiring registration adopted in AS 8.48 in 1989 by HB 182 of the Sixteenth legislature poses a severe recruiting problem for the university. The first point is the subject of considerable debate, the latter point has a lot of merit, and has the sympathy of the Board of Registration.

The Board does not agree on the total exemption of engineers from registration, particularly while AS 8.48.341 (8) includes teaching within the definition of the practice of engineering. This means that if the legislature passes HB 158 in its present form, teachers could count their teaching time toward obtaining registration, while not considering it to be practice because of the exemption. Engineers from the private sector do not feel that it is right for teachers to have it both ways.

The board recommends a compromise for a committee substitute that would delete all of Section 1 and insert the following:  
Sec. 08.48.255 Teachers. (a) A person who is hired by a post secondary educational institution for a permanent position to teach advanced architectural, engineering, or land surveying

courses has [18 months] five years from the date of hire to fulfill the registration requirements of this chapter and may teach the course during the [18 month] 5 year period.

And on Page 1 line 11 through Page 2, line 2: Delete all of Section 2. It is possible that the Board of Registration could also be willing to look at grandfather rights for current tenured faculty, if that is necessary to resolve this situation.

Concerning land surveying, the faculty members associated with the land surveying program at the University of Alaska take a more positive point of view concerning the importance of registration. The faculty is supported by the American Congress of Surveying and Mapping, Alaska Section. ACSM passed a resolution at its annual meeting asking for a change to definition of land surveying, AS 08.48.341 (9) as follows: "practice of land surveying means any service or work the adequate performance of which involves the application of special knowledge of the principles of mathematics, the related sciences, and the relevant requirements of law for adequate evidence of the act of measuring and locating land, geodetic and cadastral surveys for the location and monumentation of property boundaries, teaching of land surveying courses in institutions of higher learning, for the platting and planning of land and subdivisions, and for the preparation and perpetuation of maps, record plats, field notes records and property descriptions that represent these surveys;" It is hoped that this definition, encompassing teaching, can be incorporated into HB 158.

I had tried to make some of these points, but was rudely cut off along with several others by Rep. Carney on April 10 before I could testify on HB 158. I heard some misinformation at that hearing, and became rather frustrated by the fast gavel I heard that morning. I was in the middle of a trial when the next hearing came up on the bill.

Please give the thoughts of the Board, and of the vast majority of professional engineers some consideration. I strongly urge that HB 158 be passed in some form. We must address the perceived recruiting problem at the UAF. I am hopeful that the approach suggested by the Board of Registration will go a long way toward solving the problem.

Sincerely,

  
Patrick Kalen, PLS

Copy: Rob Boswell, Chair, AELS Board  
AELS Board Members  
Richard Heieren, Chair, ACSM  
Alaska State Representatives and Senators  
Dr. Vincent Haneman, UAF

Alaska State Legislature  
Representative Niilo Koponen

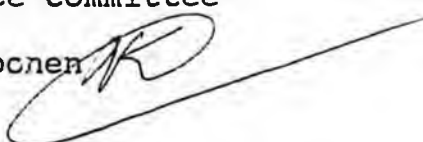
Pouch V  
Juneau, Alaska 99811  
(907) 465-4992

House District 21

119 N. Cushman, Suite 207  
Fairbanks, Alaska 99701  
(907) 456-8172

M E M O R A N D U M

TO: Senator Drue Pearce, Chair  
Senator Virginia Collins, Vice-Chair  
Senate Labor and Commerce Committee

FROM: Representative Niilo Koponen 

DATE: May 13, 1991

RE: House Bill 158, "An Act relating to the licensing requirements for architects, engineers, and land surveyors"

Please schedule a hearing for HB 158 at your earliest convenience. It is urgent that this measure pass this session.

Presently, Alaska Statutes require licensing of professional engineers, including faculty at the University of Alaska. This restriction prohibits the University from recruiting and hiring qualified but non-registered faculty from other U.S. engineering schools. Under present law, new Ph.Ds may not be eligible for Alaskan registration for 3 or more years, rendering a valuable talent pool unavailable to Alaskan university students. Non-registered faculty must become registered within 18 months of their date of hire.

Unless present law is amended, the Department of Commerce and Economic development could issue cease and desist orders to non-registered faculty as early as January, 1992. This action could effectively close down the University's engineering program, including mining engineering. Non-registered but tenured faculty would retain their jobs, but could not teach upper-level classes, requiring the hiring of additional faculty at a time when funds for new hires are scarce to non-existent.

This bill would exempt from registration faculty employed by postsecondary educational institutions to teach engineering courses for the period of their employment. This approach is taken by most other U.S. engineering schools, including MIT, Purdue and Georgia Tech. This bill does not authorize faculty to perform engineering services other than teaching and performing normal academic duties, including research.

Please schedule a hearing in your committee for this bill as quickly as possible. If you require further information, please let me know.

Drue -

I spoke with Ron Clarke in Niilo's office concerning HB 158, Licensing of architects, engineers and land surveyors.

He didn't impress me that they were pushing the bill the way Wendy Redman seems to be. He suggested that maybe the legislature should convey the message to both parties, the University and the Board, that they should sit down and resolve this issue.

Wendy says that Niilo's bill last year makes it so that all engineers at the University had an "insufficient" 18 month period to get licensed and those who didn't must be let go. This will also make it difficult for the university to find a sufficient number of instructors.

A handwritten signature or set of initials, possibly "Wendy", written in dark ink. The signature is somewhat stylized and appears to be written over a light-colored background.

# ***KALEN & ASSOCIATES, Inc.:*** Engineers & Surveyors

1041 Chena Ridge Road  
Fairbanks, AK 99709  
(907) 479-2628 / 479-2656

Land Surveys  
Mineral Surveys  
Land Planning  
Design

Civil Engineering  
Forensic Expertise  
CADD

May 14, 1991

Rep. Niilo Koponen  
P. O. Box V  
Juneau AK 99811

Ref: Licensing of teachers, HB 158

Dear Niilo:

Since I wrote a letter expressing the position of the Board of Registration on May 7 concerning this bill, proposing potential avenues of compromise, the legislation has undergone revisions. I was not aware that the Labor and Commerce committee versions had put architects and land surveyors back into the exemption language concerning teaching.

It is not acceptable to exempt teaching of land surveying from a requirement to be registered. There is no way that the land surveying profession can support HB 158 with a provision to exempt teachers. In the first year of the four year degree program that has been begun at the University of Alaska Anchorage, new faculty were hired with the condition that they obtain registration as a Professional Land Surveyor from Alaska. Registration defines what a land surveyor is. The idea that an unlicensed individual should be allowed to teach students to become professional land surveyors is ludicrous.

I hope that you can help to rectify this affront to the land surveying profession before HB 158 goes any further. As for architects, I believe that they also think that teaching of architecture is an integral part of their professional practice. (Architects do not have a scientific branch with individuals obtaining doctorates in architecture). Since there is not a school of architecture in Alaska, strong feelings are not involved. The legislature may ignore the normal practice for teaching of architecture in the United States, but please do not associate land surveyors with a local problem peculiar to engineering scientists.

Sincerely,



Patrick Kalen, PLS

Copy: Richard Heieren, Chair, ACSM  
Senator Drue Pearce, Chair, Senate Labor and Commerce  
Alaska State Representatives and Senators

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Land Surveys  
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Design

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Forensic Expertise  
CADD

XEROX TELECOPIER 295 TRANSMITTAL

Date: 5/19/91

Time: 9:08

No. of pages, including this one: 2

Job No.: \_\_\_\_\_

FROM: PATRICK KALEN  
AELS BOARD

TO: \_\_\_\_\_  
Senator Pearce

Attn: Tully Johnson

FAX No.: 463-5352

MESSAGE: PLEASE REPLACE THE FAX I SENT  
YESTERDAY WITH THIS ONE - I HAD A  
BIG TYPO IN YESTERDAY'S.

Bill/Resolution History

11:06 AM 05/15/91

Page 1

BILL: HB 158

SHORT TITLE: EXEMPT ARCH/ENGR/SURVY/OCCUPAT'L LICENSES

NAME: CSHB 158 (L&C) AM

TITLE: "An Act relating to the licensing requirements for architects, engineers, and land surveyors."

PRIME SPONSOR: KOPONEN

CO-SPONSOR: ELLIS, MOYER, SHARP, M.A. MILLER

CURRENT STATUS: (S) L&C

STATUS DATE: 05/13/91

5/15

10:55 am

Sukumar Bandopadhyay  
4018 Dunlap Ave  
FtKS, AK 99709  
~~479-0011~~ 479-0011

message: Please pass this bill in  
its present form.

**IEEE**

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

**ALASKA SECTION**

PLEASE REPLY TO:  
P.O. Box 230367  
Anchorage, Alaska 99523  
(907) 373-5746

**RESOLUTION**

The Alaska Section of the Institute of Electrical and Electronics Engineers (IEEE) strongly supports passage of CSHB 158(L&C) AM, which exempts postsecondary educational faculty from professional engineering registration requirements in Alaska. The IEEE has over 300 members in Alaska. It is the world's largest professional organization and the largest publisher of technical information.

Professional engineering registration is primarily justified by public safety considerations. Those who design public works involving public safety must be well qualified to do so. Public works design is not required of engineering faculty. Mandating faculty registration is not appropriate.

Professional engineering registration does not qualify an individual for engineering faculty positions in accredited postsecondary engineering programs. Registration can be obtained without formal university training. Professional registration in itself does not rise to the level of education and expertise required for faculty positions.

A number of IEEE members are employed as engineering faculty at the University of Alaska Anchorage and the University of Alaska Fairbanks. It is uncommon for faculty track individuals in some engineering disciplines, to consider professional registration at any time during their careers. This is especially true for many members of IEEE who work in highly technical positions not involved with public works. A registration requirement could be a barrier to the recruitment of contemporary faculty.

The Alaska Section of IEEE believes that qualification standards for engineering faculty positions should be set in academic forums. If HB 158 is not passed, the net result may be a decrease in quality of engineering faculty. That in turn would adversely impact our profession and the public well being.

A handwritten signature in cursive script that reads "Richard M. Brown".

Richard M. Brown May 15, 1991  
Chairman

\*\*\* FAX MEMO \*\*\* pages 2  
 TO Sen. DREW PEARCE  
 fax 463-5352 phone \_\_\_\_\_  
 FROM BOB BALDWIN - IEEE  
 fax 561-2482 phone 562-2482

Alaska Section IEEE  
 Resolution in support  
 of HB158.

LABOR AND COMMERCE - Letter of Intent

HB 158 - Engineers, Architects, and Land Surveyors

The Labor and Commerce Committee recognizes the authority of the Board of Regents to make final determinations on the curriculum and faculty qualifications for University of Alaska instructional programs. There is no precedent in statute for intervening in the determination of faculty qualifications, and establishing such a precedent would open the academic process to unnecessary and inappropriate interference.

At the same time the Labor and Commerce Committee feels it is particularly appropriate for the Board of Regents to assure that faculty in professional areas have demonstrated expertise in the application and practice of their disciplines. It is the belief of the Labor and Commerce Committee that the education of university students in the professions will be enhanced by faculty with proven private sector experience and expertise.

It is the understanding of the Labor and Commerce Committee that the University works closely with professional organizations and national accrediting associations in the professional disciplines -- engineering, teacher education, business, nursing and health sciences, and social work -- in determining appropriate curriculum and faculty qualifications. ~~It is also the understanding of the Labor and Commerce Committee that the Alaska Chapter of the National Society of Professional Engineers has not directed its concerns regarding their preference for professional licensing of engineering faculty to the Board of Regents.~~ Given the preference of the legislature for allowing the University to maintain its authority for academic issues, and its desire for professional programs to be closely linked to the needs of the private sector, the Labor and Commerce Committee directs the National Society of Professional Engineers and the Board of Regents to meet and discuss the issue of registration for senior engineering faculty. It is the expectation of this committee that the issues raised by the Alaska Chapter of the National Society of Professional Engineers will be given serious review and consideration by the Board of Regents.

907-474-7137  
FAX 907-474-6087

Electrical Engineering Department

# UNIVERSITY OF ALASKA FAIRBANKS



School of Engineering • 539 Dockering Building • Fairbanks, Alaska 99775-0660

May 16, 1991

Honorable Dick Eliason  
Labor & Commerce Committee  
Alaska State Legislature  
P. O. Box V  
Juneau, Alaska 99811

Dear Senator Eliason:

Please distribute the enclosed resolution on HB 158 to the other members of the Labor & Commerce Committee. We understand that it has been sent to this committee but are unsure whether it was faxed or mailed. We want to make sure it reaches you before the hearing today at 3:30.

Thank you very much.

Sincerely,

*John Aspnes*

John Aspnes, Head  
Department of Electrical Engineering

JA:DP



**IEEE**

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

**ALASKA SECTION**

PLEASE REPLY TO:  
P.O. Box 230367  
Anchorage, Alaska 99523  
(907) 373-5746

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The Alaska Section of IEEE believes that qualification standards for engineering faculty positions should be set in academic forums. If HB 158 is not passed, the net result may be a decrease in quality of engineering faculty. That in turn would adversely impact our profession and the public well being.

Richard M. Brown May 15, 1991  
Chairman

FISCAL NOTE

STATE OF ALASKA  
1991 LEGISLATIVE SESSION

BILL NO. HB 158

Revision Date: \_\_\_\_\_ Department Affected: Commerce & Economic Dev.  
 Title: Relating to the licensing requirements for architects, engineers and land surveyors BRU: Occupational Licensing  
 Sponsor: Reps. Koponen, et al. Component: Administration  
 Requestor: House HESS COMPONENT SERIAL NO. 

0	3	5	6
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Expenditures/Revenues: (Thousands of Dollars)

OPERATING	FY 92	FY 93	FY 94	FY 95	FY 96	FY 97
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0

CAPITAL	0	0	0	0	0	0
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REVENUE	0	0	0	0	0	0
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FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME						
TEMPORARY						

Estimate of current year impact: None

ANALYSIS: (Attach a separate page if necessary.)

New funds are not required to implement the provisions of HB 158.

Prepared By: Jennifer Strickler, Administrative Officer Phone: 465-2144  
 Division: Occupational Licensing Date: \_\_\_\_\_  
 Approved by Commissioner: Glenn A. Olds  
 Agency: Department of Commerce & Economic Development Date: 4-10-91

Distribution (by preparer): Legislative Finance, Legislative Sponsor, Requestor, OMB, & Impacted Agency(ies).

MAY 13 1991

Alaska State Legislature  
Representative Niilo Koponen


Pouch V  
Juneau, Alaska 99811  
(907) 465-4992

House District 21

119 N. Cushman, Suite 207  
Fairbanks, Alaska 99701  
(907) 456-8172

M E M O R A N D U M

TO: Senator Drue Pearce, Chair  
Senator Virginia Collins, Vice-Chair  
Senate Labor and Commerce Committee

FROM: Representative Niilo Koponen 

DATE: May 13, 1991

RE: House Bill 158, "An Act relating to the licensing requirements for architects, engineers, and land surveyors"

Please schedule a hearing for HB 158 at your earliest convenience. It is urgent that this measure pass this session.

Presently, Alaska Statutes require licensing of professional engineers, including faculty at the University of Alaska. This restriction prohibits the University from recruiting and hiring qualified but non-registered faculty from other U.S. engineering schools. Under present law, new Ph.Ds may not be eligible for Alaskan registration for 3 or more years, rendering a valuable talent pool unavailable to Alaskan university students. Non-registered faculty must become registered within 18 months of their date of hire.

Unless present law is amended, the Department of Commerce and Economic development could issue cease and desist orders to non-registered faculty as early as January, 1992. This action could effectively close down the University's engineering program, including mining engineering. Non-registered but tenured faculty would retain their jobs, but could not teach upper-level classes, requiring the hiring of additional faculty at a time when funds for new hires are scarce to non-existent.

This bill would exempt from registration faculty employed by postsecondary educational institutions to teach engineering courses for the period of their employment. This approach is taken by most other U.S. engineering schools, including MIT, Purdue and Georgia Tech. This bill does not authorize faculty to perform engineering services other than teaching and performing normal academic duties, including research.

Please schedule a hearing in your committee for this bill as quickly as possible. If you require further information, please let me know.

Alaska State Legislature  
Representative Niilo Koponen

Pouch V  
Juneau, Alaska 99811  
(907) 465-4992

House District 21

119 N. Cushman, Suite 207  
Fairbanks, Alaska 99701  
(907) 456-8172

SPONSOR STATEMENT

House Bill 158

"An Act relating to the licensing requirements for  
architects, engineers, and land surveyors"

Presently, Alaska Statutes require licensing of professional engineers, including faculty at the University of Alaska. This restriction prohibits the University from recruiting and hiring qualified but non-registered faculty from other U.S. engineering schools. Under present law, new Ph.Ds may not be eligible for Alaskan registration for 3 or more years, rendering a valuable talent pool unavailable to Alaskan university students. Non-registered faculty must become registered within 18 months of their date of hire.

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This bill would exempt from registration faculty employed by postsecondary educational institutions to teach engineering courses for the period of their employment. This approach is taken by most other U.S. engineering schools, including MIT, Purdue and Georgia Tech. This bill does not authorize faculty to perform engineering services other than teaching and performing normal academic duties, including research.

**CS FOR HOUSE BILL NO. 158 (L&C) am**  
**IN THE LEGISLATURE OF THE STATE OF ALASKA**  
**SEVENTEENTH LEGISLATURE - FIRST SESSION**

**BY THE HOUSE LABOR AND COMMERCE COMMITTEE**

Amended: 5/10/91

Offered: 4/26/91

Referred: Rules

Sponsor(s): REPRESENTATIVES KOPONEN, Ellis, Moyer, Sharp, M.A.Miller

**A BILL**

**FOR AN ACT ENTITLED**

1 "An Act relating to the licensing requirements for architects, engineers, and land  
 2 surveyors."

3 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

4 \* Section 1. AS 08.48.331 is amended to read:

5           Sec. 08.48.331. EXEMPTIONS. This chapter does not apply to

6                   (1) a contractor performing work designed by a professional architect or engineer  
 7           or the supervision of the construction of the work as a supervisor or superintendent for a  
 8           contractor;

9                   (2) workers in building trades crafts, superintendents, supervisors, or inspectors  
 10          in the performance of their customary duties;

11                   (3) an officer or employee of the United States government practicing architecture,  
 12          engineering, or land surveying as required by the person's official capacity;

13                   (4) an employee or a subordinate of a person registered under this chapter if the  
 14          work or service is done under the direct supervision of a person registered under this chapter;

1 (5) associates, consultants, or specialists retained by a registered individual, a  
2 partnership of registered individuals, or a corporation authorized to practice architecture,  
3 engineering, or land surveying under this chapter, in the performance of professional services if  
4 responsible charge of the work remains with the individual, the partnership, or a designated  
5 representative of the corporation;

6 (6) a person preparing drawings or specifications for

7 (A) a building for the person's own use and occupancy as a single family  
8 residence;

9 (B) farm or ranch buildings, unless the public health, safety, or welfare  
10 is involved;

11 (C) a building that is intended to be used only as a residence by not more  
12 than four families and that is not more than two stories high;

13 (D) a garage, workshop, or similar building that contains less than 2,000  
14 square feet of floor space to be used for a private noncommercial purpose;

15 (7) a specialty contractor licensed under AS 08.18 while engaged in the business  
16 of construction contracting or designing systems for work within the specialty to be performed  
17 or supervised by the specialty contractor, or a contractor preparing shop or field drawings for  
18 work that the specialty contractor has contracted to perform;

19 (8) a person furnishing drawings, specifications, instruments of service, or other  
20 data for alterations or repairs to a building that do not change or affect the structural system or  
21 the safety of the building, or that do not affect the public health, safety, or welfare;

22 (9) a person who is employed by a postsecondary educational institution to  
23 teach engineering, architectural, or land surveying courses; in this paragraph,  
24 "postsecondary educational institution" has the meaning given in AS 14.48.210.

25 \* Sec. 2. AS 08.48.255 is repealed.