

THE PELS NEWS

A Publication of the State Board of Licensure For Professional Engineers & Professional Surveyors

October, 2014

Newsletter

Thirty-Fifth Edition



Remembering Sherman Smith, P.E., P.S. 1953 ~ 2014

Board Member & Pulaski County Public Works Director Dies at age 60

On September 18^{th} , 2014, Sherman Dial Smith, P.E., P.S. passed away at the age of 60. Sherman was an Engineer member of the Board appointed by the Governor in 2008 and reappointed in 2012. He served as Vice President of the Board – 2010-2011, President – 2011-2012, and as a member of the Complaint Committee – 2009 to present.

Sherman was licensed as a Professional Surveyor in 1985 and a Professional Engineer in 1989. For the last 17 years he served as Director of Public Works for Pulaski County. Sherman was also known locally and nationally as an expert on floodplain management issues, and he taught courses for area professional organizations as well as for the Federal Emergency Management Agency.

Sherman had a lot of outside interests. His column in the April 2012 Board newsletter identified, astronomy, riding motorcycles and looking for ancient survey monuments as some of his favorites. It was Sherman that led the effort to relocate Arkansas' Zero Milestone monument from the basement of the State Capitol to its current position in front of the Board's offices.

As much as he was known for his engineering and surveying knowledge and skill, Sherman was probably better known for his quick wit and often self-deprecating sense of humor. At his memorial service, friends and co-workers shared their favorite "Sherman" stories and those in attendance laughed and smiled as much as they cried. Board staff recalled their own Sherman stories like the time he visited the office dressed as Santa Claus, and his frequent visits to fill candy bowls earning him the nickname "Candyman".

Sherman is survived by his best friend and wife of 38 years, Delinda.

In closing, Sherman's legacy to the Board is best summarized by a recent quote from a long time Board member:

"We have lost a best friend and board member. I was fortunate to sit next to him in many board meetings and will never forget the positive influence it had. He could listen to the rest of us debate a complex issue and then with a simple comment, often supplemented with subtle humor, show us the solution. I never met anyone that did not like him. We will miss you, Sherman." ~ Jim Engstrom



"What we have done for ourselves alone dies with us; what we have done for others, and the world, remains... immortal." ~ Albert Pike

Governor Reappoints Hoffman & Young, Board elects them as officers for 2014-2015

Recently Governor Beebe reappointed Ivan Hoffman, P.S. and Dan Young, Esq. to additional four-year terms on the Board. Mr. Hoffman was reappointed as the Surveyor Member and Mr. Young as a Consumer Member. At its July meeting, the Board elected Mr. Hoffman as President and Mr. Young as Vice President for 2014-2015.

Mr. Hoffman has been a professional surveyor since 1973, and President and owner of Hoffman and Associates, Inc. since 1978. He was originally appointed to the Board in 2002 and his most recent appointment was to a fourth term.

Mr. Young has been a licensed attorney, and is a Member at the Rose Law Firm. He was originally appointed to the Board in 2010 and the most recent appointment was for a second term.

Board Members

Ivan Hoffman, PS President Surveyor Member

Ronald R. Hawkins, PE PS Engineer & Surveyor Member

> Frank Vozel, PE Engineer Member

Tommy Bond, PE, PS Engineer Member

Robert Holloway, PE Engineer Member

H James Engstrom, PE Engineer Member

David Beasley, PhD, PE Engineer Member

> Nora Moses Consumer Member

Dan Young Consumer Member

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THE DIRECTOR'S CORNER

by Steve Haralson, PE

Where have all the surveyors gone?

Examinees, Applicants & Licensees on the decrease nationally and in Arkansas

At a recent NCEES meeting, it was announced during the Finance Committee report that Surveyor exam revenue was anticipated to be down this year. The Committee Chair, George Gibson from Oklahoma, noted that the decrease continued a recent trend of surveyor exam revenue declining every year.

Curious how much the numbers had actually declined, I asked NCEES' Director of Exam Development, Tim Miller if he had any actual data about how many are taking their Surveyor exams and he provided the following table:

Exam / Year	2010-2011	2011-2012	2012-2013	2013-2014
FS	1,608	1,553	1,378	897
PS	1,255	1,217	1,156	1,010

Tim explained that the 2013-2014 FS numbers included those taking it by computer through the end of April of this year.

These numbers certainly bore out George's reported forecast and it made me wonder whether we were seeing similar declines in Arkansas too. Below is the same box with Arkansas' numbers instead and it reveals somewhat comparable reductions and especially for those taking the FS:

Exam / Year	2010-2011	2011-2012	2012-2013	2013-2014
FS	50	40	34	14
PS	19	29	19	15

Finally, I wondered whether the lower number of examinees translated into a lower number of Surveyor Intern and original Professional Surveyor licensees. The box below with the number of Interns and Professional licensed in our state by per year will show a decrease especially in the last couple of years.

Year	2011	2012	2013	2014*		
Intern	15	21	7	0		
Professional	9	22	7	6		

*The number of 2014 licensees is current through the end of July.

So what does all this mean if anything? Is it a bump in the road, a temporary downturn, or an indicator of bigger problems in the future?

It doesn't appear that lack of demand is the problem. The most recent Bureau of Labor Statistics occupational outlook projects that the number of surveyors needed is expected to increase over the next 10 years and the job opportunity outlook for a surveyor is "excellent".

So where have all the Surveyors gone?

Governor appoints Beasley to complete term

Governor Beebe has appointed recently retired Arkansas State University College of Engineering Dean David Beasley, Ph.D., P.E. to complete the remaining term of Sherman Smith, P.E., P.S.

Dr. Beasley holds B.S. & M.S. degrees in Agricultural and Biological Engineering degrees from Mississippi State University and a Ph.D. in Agricultural Engineering from Purdue. He has been a member of the faculty at the University of Arkansas at Fayetteville, Purdue University, Professor and Head of the Biological and Agricultural Engineering Department at the University of Georgia's Coastal Plain Experiment station, and a Professor and Department Head at North Carolina State University.

Dr. Beasley has been an ABET evaluator for more than 20 years. He was a member of the Engineering Accreditation Commission of ABET for 12 years, serving as Chair in 2012-2013. He also served on the Executive Committee of the Commission where he was chair of the Criteria Committee. Dr. Beasley's term will expire in 2016.

2.



REPORT ON DISCIPLINARY ACTIONS Taken by the Board since May 2014

By Steve Haralson, PE

CASE NUMBER #2013-14, in the matter of James Francis, P.S.

COMPLAINT Francis was employed by a firm and he provided surveying services for a subdivision in Missouri that included sealing a plat and field layout and staking without his employer's knowledge. Francis used the employer's equipment and staff to provide the services and used the stamp of another Professional Surveyor without his knowledge to seal the plat. Francis was paid directly by the Missouri client for the services and he charged his time and those assisting him, to other of his employer's jobs.

RESOLUTION After a hearing on August 6, 2014, Francis was found guilty of dishonorable, unethical or unprofessional conduct, misconduct in the practice of surveying, knowingly making false statements or signing false statements to induce payment, accepting payment from more than one party for the same work, and failing to provide information. He was assessed a civil penalty of \$25,000 and his license was revoked.

CASE NUMBER #2013-19, in the matter of James Winchester, unlicensed

COMPLAINT Winchester was employed by a Professional Surveyor assisting him with mostly field work. The Professional Surveyor terminated Winchester when he discovered Winchester was accepting payment from some of the Professional Surveyor's clients and keeping it for himself. After being discharged, Winchester opened a firm, Winchester Geomatics, had business cards made showing him to the "Owner/Surveyor" and advertised to provide surveying services.

RESOLUTION After a hearing on September 9, 2014, Winchester was found guilty of the unlicensed practice of surveying and offering or providing surveying services without a Certificate of Authorization and assessed a civil penalty of \$400.

CASE NUMBER #2014-01, in the matter of John Brown, P.E./Structural Modeling & Analysis, LLC

- **COMPLAINT** Brown submitted an application for Professional Engineering licensure based on licensure in another state. Statements in the application prompted an inquiry into whether Brown and/or his firm had begun work in this state prior to the application being submitted.
- **RESOLUTION** After a hearing on August 6th, 2014, Brown was assessed a civil penalty of \$500 for providing or offering to provide engineering services without a Certificate of Authorization.

James Atchley, Board Investigator Retires

James Atchley, P.E., the Board's Investigator retired at the end of September. He had been employed at the Board since 2007 and was the Board's first full-time investigator. James earned a BS in Civil Engineering from the University of Arkansas at Fayetteville in 1984 and prior to coming to the Board had been employed for 16 years at the Arkansas Department of Environmental Quality where he was the Technical Assistance Manager in the Regulated Storage Tank Division.

"James inherited an Enforcement program that was badly in need of improvement. He worked hard during his seven years to make the program better, and as a result cases are much better organized and administered. I and the Board are very grateful for his service to the public and our profession". ~ Steve Haralson, Executive Director



2014	Nov	4 Registration with NCEES opens for April 2014 PE/PS exam				
10			Veterans Day – State offices closed			
		12	Board Meeting, PELS Board Office			
		27	Thanksgiving Day – State offices closed			
	Dec	24-25	Christmas Eve & Day – State offices closed			
2015	Jan	1	New Year's Day – State offices closed			
		1	Cut-off date for PE/PS applications for April 2015 exams			
		13	Board Meeting, PELS Board Office			
		19	Dr. Martin Luther King, Jr., Birthday – State offices closed			
	Feb	16	George Washington's Birthday & Daisy Gatson Bates Day – State offices closed			
		TBA	Board meeting, PELS Board Office			
	Mar	10	Board Meeting, PELS Board Office			

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A history of the Arkansas Board of Licensure for Professional Engineers and Professional Surveyors

The Evolution of Engineering & Surveying Education in Arkansas

The current state of Engineering & Surveying education in Arkansas is very good. A review of the ABET website revealed Arkansas has six (6) universities offering twenty one (21) engineering degree programs accredited by its Engineering Accreditation Commission. In addition to these, there are at least 3 other programs – two at schools that have other accredited programs and one that currently does not – that likely will become accredited within a few years. Another essentially offers a satellite program in cooperation with allowing students to take all engineering classes at the satellite location.

Students interested in surveying also have in-state options with two and four year programs available at two campuses.

There wasn't, however, always the educational opportunities that exist now. This is the first of a couple of articles that looks at how the education programs have evolved and their relationship with the Board and its regulatory program. In this first article, we will look at engineering education.

The origins of modern engineering education can be traced back to the late 1700's in France. Engineering education came to the United States in the early 1800's and to Arkansas in the late 1800's. The University of Arkansas at Fayetteville (UAF) website reports that the first Civil Engineering degree was awarded in 1888 and the first Mechanical Engineering degree was awarded in 1891 – at that time the school was called Arkansas Industrial University.

Interestingly enough, the original Act 202 that formed the Board in 1925 and set the initial qualifications for engineering licensure, placed less importance on education than on experience. In addition to providing for "grandfathering" those practicing engineering for one (1) year, Section 9 of the Act provided that an applicant for licensure was required to have four (4) years of engineering experience and could substitute graduation from an engineering school "of recognized standing"¹ for up to two (2) years of the required experience.

Of course, at least part of the explanation for the apparent lack of emphasis on education was that there just weren't many places where an engineering education could be earned. In 1925 and for quite a few years after that, the only engineering school was at the UAF. Currently the UAF offers accredited undergraduate programs in Biological, Chemical, Civil, Computer, Electrical, Industrial & Mechanical Engineering and accredited graduate programs in Biomedical and Environmental Engineering.

It wasn't until the 1950's and the introduction of the Engineer In Training program that education took on its current significance. Act 214 of 1953 amended the original 1925 law so that an applicant for professional licensure could qualify with a degree from an accredited program and four (4) years of experience. The Act also doubled the amount of experience required for professional licensure for those without an engineering degree to eight (8) years.

In the 1960's and 1970's other institutions began to emerge and gain attention. At a meeting in September 1961, and after a report by Board members and UAF Engineering School Dean Branigan, the Board voted to give graduates of John Brown University's engineering program three (3) years of experience credit toward the eight (8) year experience requirement. The John Brown program became ABET accredited in 1995.

As a result of a vote in December 1969, Arkansas State University's students in Agriculture with a major in Agricultural Engineering were allowed to take the EIT exam. This Arkansas State program later became accredited with an effective date of 1979. Later still, ASU added a General Engineering program that became accredited in 1987 and most recently added discipline specific accredited programs in Civil, Electrical and Mechanical Engineering.

At a couple of meetings in 1973, the Board evaluated the Arkansas Tech engineering program and voted that its students (and any from other nonaccredited engineering programs) could take the EIT exam two (2) years after graduation and the PE exam four (4) years after that. The General Engineering program became accredited effective 1989, and later it formed Electrical & Mechanical Engineering programs that became accredited in 1999.

Beginning in 1978, the Board began receiving requests from UALR to allow students in its Engineering Technology program to take the EIT and two (2) Board members were charged at a 1980 meeting with drafting rules providing for licensure for those graduates. The rules were amended in 1986 to allow for licensure with a technology degree and again in 2001 so that technology students had to also have a graduate degree in engineering. The current Systems Engineering program at the school became accredited in 2004 and made retroactive to 2002.

The 2001 rule change was preceded by what was the last major change to engineer license qualifications. In 1993, the Legislature passed Act 1041 that eliminated beginning in 2001, not only the path for students with a technology degree alone but also the experience only path. The 2001 effective date provided an approximately eight (8) year window for any "in the pipeline" to become licensed with the prior qualifications.

Harding University became one of the last schools to receive accreditation for its engineering programs and its students were approved to take the FE exam at a meeting in February 2009. Its program in Computer Engineering became accredited with a retroactive effective date in 2005 and its Electrical and Mechanical Engineering programs were accredited retroactive to 2007.

Possibly one of the more innovative programs is offered by the University of Arkansas at Fort Smith in cooperation with UAF. This school allows students to obtain degrees in Mechanical and Electrical Engineering from UAF but take all courses at the Fort Smith campus. The college's website describes the programs as:

Upper division courses are taught in person or through distance-learning technology by the excellent faculty members of the UAF College of Engineering. Lower division courses are taught by highly-talented professors located on the UA Fort Smith campus.

There are three (3) schools whose requests were submitted and approved by the Board, to allow undergraduate students in specific unaccredited programs to take the FE in anticipation of later accreditation. These are UALR's Civil & Construction Engineering program (February 2012), UAF's new Biomedical Engineering (January 2013), and Southern Arkansas University's Engineering program (May 2014) that began in August 2014.

Next time . . . Surveying education emerges in the 1960's and 1970's

¹ Whether an institution-or program was accredited or not was not an issue in 1925 because ABET's predecessor, EPCD didn't begin accrediting institutions until 1936.

CONGRATULATIONS to those who passed an NCEES exam!

New licenses issued January 1 - Oct 7, 2014

ENGINEER INTERNS – FUNDAMENTALS OF ENGINEERING

8328 David Collier	8348 Christopher Morris	8368 Eric Romero Sr.	8388 Jonathan Crews	8408 Robert Dorch	8427 Micah Wyssmann
8329 Travis Ricker	8349 Dustin Morris	8369 Jordan Falls	8389 Daniel Hoyer	8409 Ryan Dufour	8428 Derek Tennison
8330 Jeff Thomas Jr.	8350 Daniel Power	8370 William Goodson	8390 Bruno Jacobo	8410 Neil Eastwood	8429 Ramon Valenzuela
8331 Kristina Sevy	8351 Brandon Richardson	8371 Joshua Hernandez	8391 David Kimmel Jr.	8411 Ryan Hagedorn	8430 Andrew Taylor
8332 Victoria Skach	8352 Sean Salazar	8372 John Hoover	8392 Josiah Moore	8412 Courtney Hill	8431 Christopher Taylor
8333 Zachary Young	8353 Melana Snow	8373 Kenneth Rains	8393 Kirby Parks	8413 Christine McAlpine	e 8432 Justin Angel
8334 Steven Bray	8354 William Stanton	8374 Dominick Bisogni	8394 David Ramsey	8414 Matthew Martin	8433 Joel Lender
8335 Zachary Dedmon	8355 Javier Paz	8375 Ethan Broadway	8395 Bryan Rich	8415 Landon Miller	8434 Kyle Smith
8336 Seth Adams	8356 Rashid Swann	8376 Daniel Bryant	8396 Alex Warzecha	8416 Jessie Moncrief	8435 Ricky Voigt
8337 Adam Albright	8357 Jeffrey Turk	8377 Austin Miller	8397 Andrew Hudson	8417 Zach Morehart	8436 Pacifique Mwabo
8338 Andrew Binder	8358 Blake Watson	8378 Nathaniel Newton	8398 Kenneth S Rangel	8418 Colby Reavis 8	437 Ignace Nkurikiyimfura
8339 Doddridge Davis	8359 Anton Korolev	8379 Justin Payne	8399 Michael Pitts	8419 Bryce Robertson	8438 John Holloway
8340 Thien duc Do	8360 Daniel Brown	8380 Nathan Smith	8400 Michael Durham	8420 Brandon Rush	8439 Derek Strause
8341 Preston Eidson	8361 Everett Noblin Jr.	8381 Brett Vaughn	8401 Ben Spilker	8421 Morgan Rush	8440 Michael Neyman
8342 Robert Gregory	8362 Josh Henthorne	8382 Jordan A Zielinski	8402 Jackie D Rabb, II	8422 Gibran Santana	8441 Trenton Cleghorn
8343 Nathan Huffer	8363 Maxx Leach	8383 Keith Enlow	8403 Eric Anderson	8423 Andrew Simms	8442 Charles Bostwick
8344 Tai Huynh	8364 Stephen Tjan	8384 Anna Shafer	8404 Russell Bair	8424 Joel Stewart	8443 Nicholas Lombardo
8345 Kylie Keene	8365 Wesley Honnell	8385 Jonathan Zinck	8405 Pratik Baral	8425 Zane Sturm, II	8444 Ralph Huneycutt, IV
8346 William Lake	8366 Shanyce Day	8386 Eric Apgar	8406 Brett Bland	8426 Michael Wear	8445 Dillon Bentley
8347 Clinton Mash	8367 Justin Franco	8387 Amlam Niragire	8407 Bradley Burns		

PROFESSIONAL ENGINEERS – PRINCIPLES & PRACTICE OF ENGINEERING

16141 Matthew Bellott	16147 Sean Garling	16153 Nicholas Holland	16159 Jessica Mangler	16165 Michael Nugent
16142 Ryan Blankenship	16148 Ryan Hardin	16154 Garret Johnson	16160 David McFadden	16166 James Orr
16143 Lance Bowers	16149 Ryan Harrigill	16155 Ryan Lee Jones	16161 Ryan J. Mills	16167 Jeffrey Parker
16144 Linsey Cantrell	16150 Caleb Haynes	16156 Rubal KC	16162 Mark Mizell	16168 Andrew Roberson
16145 Charles Cullen	16151 Michael Henry	16157 Patrick Klepper	16163 Daniel Morgan	16169 Marshall Rucker
16146 Amit K. Dash	16152 Brandon Hentschel	16158 Jacob Koch	16164 Anuradha Nalla	16170 Raymond Ryan

SURVEYOR INTERNS – FUNDAMENTALS OF SURVEYING PROFESSIONAL SURVEYORS – PRINCIPLES & OF SURVEYING

682 Robert Barringer

1783 Shawn Hime 1784 Jeffrey Parker 1786 Halen Harris

1785 Wayman White 1787 Bryan Thomas



Council makes key changes to its Model Laws & Rules at 2014 Annual Meeting

At its 2014 Annual meeting the National Council of Examiners for Engineering & Surveying made some significant revisions to its Model Laws & Model Rules pertaining to engineering education and timing of testing. NCEES' Model Law and Model Rules are not binding on its members but are instead guides to help achieve greater uniformity in licensure laws among its member jurisdictions.

The change to the engineer education requirement was to remove language that would have required education beyond a bachelor's degree beginning in 2020. Rather than continuing to be in the Model Law/Model Rules, this provision was made instead a position statement.

The change in testing removed the prerequisite for four (4) years of experience before taking the NCEES Principles & Practice of Engineering examination. The amendment was directed only to when the exam could be taken and did not change the requirements for licensure - four (4) years of experience are still necessary before professional licensure. A more detailed description of these amendments can be found at www.NCEES.org.

1788 Justin West



NCEES seeks licensed civil engineers

NCEES is seeking licensed civil engineers to participate in a standard-setting study for the Principles and Practice of Engineering (PE) Civil exam, which is used throughout the United States for licensing purposes. To qualify, volunteers must be licensed professional engineers practicing in the civil engineering discipline.

The standard-setting study will take place May 15–16, 2015, in Clemson, South Carolina. Travel and lodging expenses will be paid by NCEES. Selected volunteers will review and rate the difficulty of items that will be included on the updated exam. The volunteers' responses will help NCEES determine the passing score for the PE Civil exam.

For more information contact Susan Cline, P.E., Exam Development Engineer, by e-mailing Ms. Cline at <u>scline@ncees.org</u> or calling her at 864-654-6824.



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