DAPE NEWS

News **from Delaware's Licensing Council for Professional Engineers Summer/Fall 2010**

PRESIDENT'S MESSAGE
By Frank A. Newton

As I come to the end of my term as President of the DAPE Council I would like to express my sincerest appreciation to the members of the DAPE Council for their continued service to the citizens of the State of Delaware and to the community of Professional Engineers. These volunteers and the many volunteers that serve on the standing and special committees of the Council provide an essential and efficient structure committed to the protection of the safety and health of the public.

As a public member of the Council I have been consistently impressed by the interest and quality of input from these people. Thanks to all of you.

The quality of service provided by the very small staff of DAPE is also to be recognized. I don't know of any other Professional Engineer jurisdiction that can boast of such a small and competent staff. An indication of this professionalism is the fact that Peggy Abshagen, our Executive Director, was selected at the Annual NCEES Meeting in Denver for the Meritorious Service Award for 2010. Her selection was made on the basis of her service to the State of Delaware and for years of service to both the NCEES Northeast Zone and to NCEES nationally. This recognition was well past due and certainly appropriate. We are proud of this recognition and congratulate her on the receipt of this award.

We regretfully said goodbye to two members of the Council at our August meeting. **Robert W. McClure, P.E.** and **Richard M. Walsh, Jr., P.E.** Bob McClure has served the Council since 1982. He is a past President of the Council and has served on all of the DAPE committees at one time or another. He has served NCEES and on a number of professional organizations in a number of roles for many years. We wish him well in his future endeavors. I am sure we can rely on Bob's continued interest and service to the DAPE Council. Rick Walsh, unfortunately for us, has had a change in employment and the time commitments would not allow him to continue serving on Council. We do appreciate his service on Council and as Chair of the Public Information Committee and wish him well on his new venture.

In business conducted at the annual meeting of NCEES one of the more interesting items addressed is the intent to make the FE and FS exams computer-based within the next two to three years. This has been a subject long discussed in NCEES and they are now prepared to move forward with developing a computer based model for the FE and FS exams. There are still any number of obstacles to overcome, not the least of them, exam security and an adequate number of seats for testing. We will watch with interest and input our thoughts as this program moves forward.

MESSAGE FROM 2010-2011 DAPE PRESIDENT

By Gregory Pawlowski, P.E.

With the beginning of my tenure as DAPE President, I would like to initially thank past presidents Frank Newton and Guy Marcozzi for the outstanding leadership and mentoring they have given me these past four years in preparation for my position. I would also like to thank the members for allowing me to serve another four-year term on the DAPE Council.

Over the past two years, there has been widespread discussion nationwide for businesses and government to be more transparent in their actions and comprehensible in their policies and accounting practices. This is a subject which has also been broached by the DAPE Council even though the Association is very conservative and healthy by virtue of its Bylaws. During the next year, we will be reviewing and updating our Policies and Procedures manual and implementing recommendations by our annual auditor to better meet the conditions set forth, by the IRS, for non-profit organizations such as ours. We all know the engineer's code of ethics dictates our duty is to protect the health, safety, and welfare of the public and we are taking steps to ensure the Association continues its health, safety, and welfare also. As these improvements occur, they will be reported in upcoming newsletters.

This past August I had the opportunity to attend the annual National Council of Examiners for Engineers and Surveying (NCEES) meeting held this year in Denver, Colorado. As a reminder to those that don't recognize this group, they are the ones that develop and administer the semi-annual Fundamentals of Engineering (FE) and Principal and Practices of Engineering (PE) exams. All states, along with several US Territories, belong to this organization and meet once a year in their respective zone, of which there are four, as well as hold an annual meeting for all members. As with DAPE, NCEES is comprised of many standing committees that work throughout the year on things as simple as Bylaw changes to such issues as the definition of a Model Law Engineer.

As mentioned in the President's Message, one of the hot topics of discussion this year revolves around a move towards computer-based testing (CBT) for all engineering and surveying candidates. Before rising out of your seat in response to this idea, please be aware that it is still in its infancy with several more years ahead prior to its implementation. And for information purposes, it is a concept that many other professional boards have been using for years. Changes such as this will take years to develop and the goal is to begin with the fundamental exams and work toward the principal and practices exams.

I look forward to serving the members and keeping them informed of progress at DAPE as well as changes at NCEES.

MESSAGE FROM THE EXECUTIVE DIRECTOR

By Peggy Abshagen

The perspective of the NCEES Annual meeting from an administrative view . . . This gathering is always well coordinated and informative for the representatives from across the country. Board members, administrators and attorneys from 60+ jurisdictions convened this year in beautiful Denver, Colorado for the 89th Annual Meeting. Representing DAPE were Greg Pawlowski, Charlie McAllister, Annette Shine, Tom Kiefer (emeritus member), and myself.

Workshops offered and attended were on ethics, stress management and board member legal and liability issues. Hot topics in addition to computer-based testing were new options for the additional education requirement for engineering licensure and best practices to encourage more faculty members to become licensed. Law enforcement workshops provided group review for several actual engineering and surveying case studies. (Turned out we were tougher than the original judging bodies.)

Continued discussions on the new 16-hour Structural exam which will be administered for the first time in April 2011 provided good information to prepare each board office. This new Structural exam is divided into two 8-hour components: vertical forces (offered on Friday) and lateral forces (offered on Saturday). Each component must be successfully passed within a 5-year period to pass the new Structural exam.

Also new on the exam front, effective with the October, 2010 exam administration all examinees are required to register with NCEES to select their exam. The deadline for this was September 12th. As of the August meeting date, some 30,000 examinees had already registered. As discussed in previous articles, this new Examinee Management System has been put into place to assign a unique identification number to all examinees, gather statistical examinee information, collate accurate exam orders and track the number of exam attempts for the many states that institute exam limits.

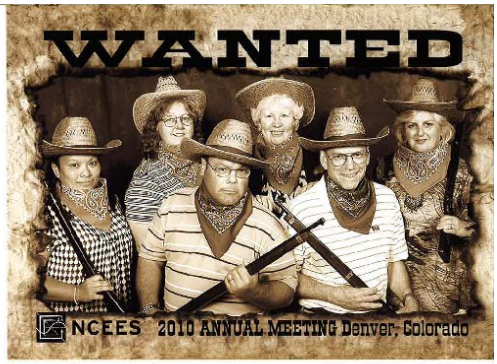
NCEES is now administering exams in five foreign countries, and continually fields requests from others. A true testament to the value of the NCEES exams.

A software engineering exam is under development for administration in the near future.

Keynote speaker Mark Sanborn, author of "You Don't Need a Title to be a Leader" and "The Fred Factor," in real-life stories demonstrated how anyone, anywhere can make a positive difference by acting with purpose rather than getting bogged down with mindless activity; caring about and listening to others; looking for ways to encourage contributions from others vs. personal achievements; and creating a legacy of contributions.

We never attend a meeting without returning to our roles as board members and administrators with new information. A behind-the-scenes tour of Invesco Field (home of the Denver Broncos) exhibited the luxury of the super boxes for watching games in the beautiful facility; the radical differences in the visitors' and home team locker rooms; the excitement of being in the media room where press interviews are conducted; the keg room where beer kegs are kept at an appropriate temperature and then piped up to the concession stands; and, of course, getting the opportunity to toss a football on the sidelines of the Denver Broncos' field!

We had a very productive business session and the great fortune to visit beautiful, exciting Denver!



(top row left to right): J. Pawlowski, A. Shine, M. McAllister, P. Abshagen, (bottom): G. Pawlowski, C. McAllister

SO . . . WHAT DOES AN ENGINEER DO WHEN NOT ENGINEERING????

Do you know an **apiarist??** Meghan Lester gained this title in 2006 when her interest in beekeeping began in September, 2006 at the Clay County Fair in Iowa while visiting a family's grain farm. (*An apiarist keeps bees in order to collect honey.)* Meghan's story *. . .*

In the fall of 2006 I visited the Iowa Dept. of Natural Resources' exhibit which was fairly empty since the National Corn Growers Association was out front giving away free samples of breakfast cereal and fruit juices corn. The exhibit was being manned by a kind old gentleman who I am fairly certain had no visitors yet that day. Chatting for well over an hour, he shared his knowledge of Colony Collapse Disorder, varoa mites, and a slue of other pathogenic viruses affecting the honey bee. In a nutshell, he said that the honey bee is a keystone species that is an indicator of environmental health.

Upon returning to Delaware, I read "Beekeeping for Dummies" and several other books on bees and beekeeping. During the winter I painted my hive, and scouted the farm for the best location. In the spring, I picked up my package of 3,000 Carniolan bees with queen in tote from the local post office and brought them home. (The postal workers thought I was nuts!)

My 3,000 bees transformed over the last few years into a strong hive of 40,000 plus. I visit a few times a month, but I typically only don the veil and suit, and smoker too, about once a month. The smoke calms the bees as I check to see that the queen is busy laying eggs and that

the colony is busy drawing comb. My hive is a typical modern beehive, and consists of two to three wooden boxes stacked on top of one another. The lower box is usually the brood chamber, where the younger bees (pupae), eggs and larvae are found. The middle and top boxes, or supers, are where the worker bees store their honey.

I close with this . . . in an episode of CSI, Gil Grissom ends the episode by saying that the human race would cease to exist four years after the honey bee becomes extinct . . .

If you would like to share with DAPE some of your interests, send us your photo and details!

Am I The Only One That's Concerned Over The Quality of Education That Our Future Engineers Are Getting*?*

By Robert A. Chagnon, P.E., SECB

In a recent article in "CE News" on "Exploring Engineering Education", I was somewhat disturbed to learn that 52% of engineering practitioners (that's us) do not think that entry-level civil engineers are well prepared for the workforce, while only 18% of academics agree with them. The author of the article, Shannon Fauerbach, P.E., did not find this disconnect between the two to be too surprising. She attributes this to several of the following factors.

- "Many of today's educators have never practiced nor earned their professional engineering license".

- "University professors are an aging population, so many who practiced civil engineering did so long ago, making them less equipped to determine what prepared means today".

- "Many professors at U.S. postsecondary schools are from foreign countries and may not know from first-hand experience what prepared means in the United States".

Other respondents of the survey that produced the aforementioned statistics attributed the disconnect to the fact that "academia is too involved with research and consider the teaching of courses as being a corollary obligation rather than a primary interest".

My take on this issue is somewhat different to a degree. I'm in full agreement with the top potential reason above and that is that most of the professors have never had a real job. Combined with that, I strongly believe that it's now the educators within the various academic departments that decide what they're going to teach and how they're going to teach it and not the industry (us engineers) that they're suppose to be preparing their graduates for.

That all came about back in 1997, when ABET aborted what was referred to as the "bean count" system of accrediting engineering and engineering technology academic programs and adopted the present "outcomes assessment" system, through what was then identified as EC2000. For those readers that are not aware of the difference, for many years TAC and ABET accreditation was based on having to show compliance with the requirement for a certain number of semester credits in particular areas of study, such as mathematics and basic sciences, engineering sciences, engineering design, humanities and etc. That system of accreditation was intended to insure that all engineering and 4-year engineering technology graduates came away with not only a common understanding of the basic engineering sciences (a common core of knowledge for all engineers) but with exposure to a higher level of studies in

their individual disciplines that were deemed to be essential by engineers that practiced in the various engineering fields involved. That was replaced with the curriculum objectives of the various programs being established by each program's faculty, providing that they could show that their choice of the courses taught could be justified from the feedback received by surveying the industries that the programs serve. These are not independent surveys but surveys made up by the program's faculty, who are also in control of interpreting the survey results. Needless to say, out went the common core of studies for all engineers and so did the acronym "ABET" which no longer stands for the Accreditation Board for Engineering and Technology, it now simply stands on its own as "ABET". For many CE majors, they can now graduate with a degree in civil engineering without having to take any courses in steel design or concrete design. Some of our engineer interns from the University of Delaware have had a semester's course that combined steel design and concrete design but neither areas of study ever exposed them to AISC's "Steel Construction Handbook" nor the ACI's "Building Code Requirements for Reinforced Concrete". They can analyze the heck out of a structural problem, via the computer, but can't prove that their results are correct through any hand analysis. They don't teach drafting anymore, just how to perform certain operations using a CAD program. As a result, they can do graphics but do not know what to draw so that the end product accomplishes its ultimate objective. Being able to read a drawing is also a challenge.

Educators claim that today's engineering graduates are better prepared to be the leaders of the future. They leave college as more well-rounded professionals with better management, communication, and leadership skills needed for business success. But, who's going to do the engineering?

2010 COUNCIL ELECTION RESULTS

The results of the 2010 Council election have been tabulated. Chief Teller Keith Kooker and Tellers Bob Cannon and Bill Balascio counted all the ballots and declared the winners as follows:

Civil Engineering **- Gregory Pawlowski**
Industry Seat **- Charles McAllister**
New Castle County **- Meghan Lester**
Mechanical Engineering **- Robert Leitsch**

Incumbents **Greg Pawlowski** and **Charlie McAllister** will serve another four-year term in the Civil and Industry seats, respectively. **Meghan Lester, P.E.** will serve her first four-year term in the New Castle County seat. **Robert Leitsch, P.E.** will serve the remaining two years in the Mechanical Engineering seat.

Housekeeping changes in the bylaws to delete the necessity of a petty cash account and align the reinstatement fee policy with the statute were overwhelmingly approved by the membership.

The results were ratified by Council at their August 11, 2010 meeting.

Thank you Keith, Bob and Bill for tabulating the results!! We appreciate your time and efforts!!

WELCOME NEW COUNCIL MEMBERS!

Meghan Lester, P.E.

Meghan was elected to serve in the New Castle County seat until August 31, 2014. License #13632 was issued to Meghan on September 8, 2004 and she has been active with DAPE almost since that time serving on both the Examining and Law Enforcement Committees, as well as proctoring exams for us routinely and encouraging University students to join the path to licensure. When not volunteering for DAPE activities, she is employed by Geo-Technology Associates of New Castle, Delaware.

Robert Leitsch, P.E.

Bob was elected to fill the remainder of the term for the Mechanical Engineering seat for the next two years. Issued license #10157 on December 13, 1994, Bob has proctored both the PE and FE exams for us over many years. We can always count on Bob. He has also served on the Disciplinary Hearing Panel. Employed by Furlow Associates of Claymont, Delaware, we look forward to his contributions.

PROJECT MANAGEMENT- PART I: INTRODUCTION

By Gregory Pawlowski,P.E.

DAPE recently held an open house for our new facility which included a seminar on ethics. Based on feedback from our attendees, it seems to have been a big hit with requests for additional seminars like this one. Ethics is a universal topic which all engineers need to practice and is independent of their discipline. Recognizing this fact led me to think about what other common topics do most engineers share.

Engineers in general begin their careers practicing and honing their specific field, which is the precursor to meeting the requirements for licensure. But as time progresses, engineers do less engineering and more managing. We move from being design engineers on individual projects to working on multiple projects from a global perspective and commonly includes resource, financial, and time management. Let's face it, we all know that you can't really move up in a fairly large firm unless you embrace all aspects of project management and move further away from designing. The exception to this statement lies with the very small firm or the sole proprietor who must wear many hats. Regretfully our undergraduate degrees don't necessarily prepare us for this transition; therefore, it is not uncommon for an engineer to supplement his education with a master's degree in a business related discipline. It is probably safe to say though that the bulk of engineers learn their project management skills through on-the-job training. While my statement may be considered biased, I consider most, but not all, engineers to have the ability of learning these skills without formal education. Certainly a formal education would better ensure a successful transition, but as a whole, engineers are good at adapting.

If a professional engineer's license is used to measure minimum competency to practice, what can be used to measure an engineer's minimum competency to manage? After all, there are numerous components to project management, independent of engineering discipline, so how can you be assured you have knowledge and mastery of them all? The answer, I believe, lies with the Project Management Professional (PMP) certification.

Since 1984 the Project Management Institute has been testing people from all walks of life on customary and globally recognized project management skills. The premise behind this certification is that, regardless of your profession, everyone should be following standard procedures when it comes to managing a project to best ensure its success. It doesn't matter whether you are an IT specialist, industrial manager, or an engineer of some type. The skills are universal and not exclusively aligned with the duties of the constructor as most would instinctively think. Even though the home office is located in Pennsylvania, its 150,000 members are located in 150 countries. In fact the exam consists of questions based on input from countries around the world. Once again, the premise is that project management procedures are global in nature in spite of location or discipline. The follow benefits are associated with becoming a Project Management Professional:

- It demonstrates proof of professional achievement
- It increases your marketability
- It provides greater opportunity for advancement in your field
- It raises customer confidence in you and your company's services

While perusing postings two years ago during my employment search, I saw several positions which required a PMP certification. Clearly this was an indication that the project management world was changing and I needed to catch up. For this reason, I have been studying recently, with two other colleagues, the *PMBOK*. A *Guide to the Project Management Body of Knowledge* is the bible which describes the disciplined approaches, methodologies, tools and techniques of project management. Assuming all goes well, I will be attempting the computer based exam in the late Fall.

As indicated in the title of this article, this is Part 1 of a series that will appear in subsequent newsletters. Topics will include various broad aspects of project management as listed above in the second paragraph. These will be presented independent of engineering discipline and hopefully will generate interest in others pursuing this certification as well as requests for future PDH earning seminars. I look forward to hearing from readers on this subject via email at office@dape.org

LAW ENFORCEMENT ACTIVITY

Case 08/115 – Hughes, Larry J. (#6938)
The Disciplinary Hearing Committee reviewed and heard evidence to support a complaint alleging incompetence, misconduct in the practice of engineering and unethical conduct, concerning a report signed and sealed by Hughes on the structural integrity of a residence. Testimony established that Hughes was trying to preserve the sale of the subject residence when he conducted his inspection and issued his report. In his final signed and sealed report, Hughes did not provide all relevant and pertinent information.

Hughes was found to have violated the Code of Ethics and was issued an administrative penalty of $250 and required to successfully pass a course in ethics.

Case Activity:

Since our last report, we have been successful in getting **11 administrative cases** to come into compliance with the law by obtaining a business license in the appropriate category or deleting publication listings.

Our investigative inquiries have resulted in **11** additional firms coming into compliance with the law by obtaining a Certificate of Authorization for the lawful practice of engineering in the State.

Engineering Practice Assessor: Fred Schmitt, P.E., our Engineering Practice Assessor, has continued his visits with various building officials throughout the state to discuss specific engineering concerns, resulting in several new investigative files.

CALLING ALL PROCTORS . . . .

The October exam administration is right around the corner, and we are soliciting proctors for **Friday, October 29th and Saturday, October 30th**. Come join your peers in volunteering a few hours for future engineers and enjoy the opportunity to meet other DAPE members and provide a valuable service to the profession.

If you are a rookie, we'll train. If you're a veteran, we'd love to have you back. We'll even provide you with lunch! Please contact our office at office@dape.org to volunteer your time!

PRESIDENT APPOINTS COMMITTEE CHAIRS

President Pawlowski has appointed the 2010-2011 Committee Chairs. Committee membership requires Council approval. If you are interested in serving on a committee, please contact the DAPE office at www.dape.org.

Law Enforcement/Ethics –	C.L. McAllister, P.E.
	W.Z. Crouch, P.E.
Examining Committee:	A. Shine, P.E.
	M. Lester, P.E.
Government Affairs:	John Tracey, Esq.
External Affairs:	D. Barbato, P.E.
Facilities Committee:	K. Kooker, P.E.
Employee Compensation:	C.L. McAllister, P.E.
Public Information:	A. DeLuca, P.E.
Finance Committee:	C.L. McAllister, P.E.

Ad-Hoc/Policies & Procedures: F. Newton

Be sure to notify the Council office.

The Delaware Association of Professional Engineers requests that you notify our office immediately of any change of address. Reporting a change of address is vital to ensure that you receive necessary renewal information and other correspondence important to your continued licensure. If you have changed your address, go to www.dape.org and update your records. Or you may complete the following form and email, mail or fax it to the Council office and we will update the records.

The Delaware Association of Professional Engineers (DAPE) is the contact agency for licensing, regulations and complaints for the engineering profession.

DELAWARE ASSOCIATION OF PROFESSIONAL ENGINEERS
92 Read's Way, Suite 208
New Castle, DE 19720

Change of Address Notice

(Please print all information)

License Number:_____

Name:_____

Old Address:_____

New Address:_____

_____

Date:_____