



DAPE

NEWS

News from Delaware's Licensing Council for Professional Engineers

Spring

2006

IN REMEMBRANCE OF THE LIFE'S CONTRIBUTIONS OF A PAST PRESIDENT, THIS ISSUE OF THE "DAPE NEWS" IS DEDICATED TO ALL THOSE TOUCHED BY A TRUE PROFESSIONAL, J. ROSS HARRIS, JR., P.E. (#8257)



PRESIDENT'S MESSAGE

By J. Paul Jones, P.E.

As I sit down to write this message, somewhat past the deadline I set for myself, I am reminded of the recent passing of my good friend Ross Harris. Ross had a lot of strengths, but as many they were, timely development of DAPE President's messages for this newsletter was not one of them.

Let me remind you of some of Ross' accomplishments, for he contributed greatly to the engineering profession. As many of you know, he was the founder and President of ECI, Inc., a successful and prominent engineering consulting firm with two offices in Sussex County and one in Exton, PA. In addition to serving as DAPE Past President at the time of his passing, he was the chair of the DAPE External Affairs Committee. That committee was, and continues to be, actively involved in addressing practice issues common to both the professions of engineering and architecture. Ross was also President of ACEC of Delaware. He had a long history of promoting the profession in other ways as well. For example, each and every year he sponsored an engineering scholarship to high school seniors that had chosen to pursue an engineering degree. In 2004, the Business and Professional Women of Delaware named Harris' company, ECI, Employer of the Year. We should all pray that we could have the impact on the profession, and those around us, that Ross had.

Speaking of an impact on the profession of engineering, I recently came across two articles in the May 2006 *International Engineering Education Digest* that paint a somewhat gloomy picture for the future of the profession. The first relates the results of a study on K-12 student performance in math and science in the US, which as we all know is the foundation of engineering. The author of the article concludes the US system of math and science education is broken, and not meeting the needs of the country for maintaining its leadership in science and technology (see <http://www.nspe.org/pemagazine.asp>).

The second indicated that the US Government Accountability Office reported that despite an increase in college enrollments over the past decade, the proportion of students obtaining degrees in science, technology, engineering and mathematics (STEM) has fallen. According to the GAO 27% of students received degrees in the STEM fields in 2003-04, compared with 32% in 1994-95. Both the number of undergraduate and graduate degrees in engineering, the biological sciences, and certain technical fields declined in the past decade.

These facts remind me of a comment I heard N.C. Vasuki, P.E. make one time about the engineering profession being one, if not the only, profession that requires a student to make a choice to embrace the profession early in his/her educational career. Perhaps as early as junior high school. This is because if one does not choose to take the prerequisite math and science curriculum at that age, he/she will most likely be too far behind to catch up.

Most of you reading this newsletter made the choice to embrace engineering at an early age. As a professional engineer or an EIT, the engineering profession has already been good to you, or you see a bright future in it as you pursue professional licensure. Take a minute to ask yourself if you are giving anything back to the profession that has, or will, be so good to you. Ask yourself what you could do to promote the profession in some way today, this month, or this year. Ask yourself, "If Ross Harris was willing and able to do it, why can't I?" What are you willing to give back?

Message from the Executive Director
By Peggy Abshagen

What do Muhammad Ali, Don Johnson, Sammy Kool, Charlie Brown, Glenn Miller and Michael Angelo all have in common? Their engineering licenses will expire on June 30, 2006.

When the initial investment was made for upgrading the DAPE website, it was our goal to improve the communications and services to our membership. With the collection of membership email addresses, we are able to provide notification of renewals, delivery of our newsletter and other communications to the membership instantly.

Certainly by now you have received notification of the expiration of your engineering license in Delaware. New this year, however, is the request to visit our website to renew your license. Thus far, in a 30-day period, more than 2500 licenses have been renewed, without the printing, stuffing and mailing of mountains of paperwork.

This new streamlined renewal process is a win-win method for all – time and costs savings for DAPE and for the membership – not to mention the forest that we saved. We have received numerous comments on the ease of use, as well as the efficiency of the process. For those of you that live in log cabins in the wilderness without land lines, you are welcome to mail in your renewal payment as has been done for decades.

Whether you renew your license electronically or via the mail, make sure you renew your license prior to **June 30, 2006**. Unlicensed practice is a serious violation of the law. And, it is your personal responsibility to insure compliance with the law.

If you haven't visited our website recently, please take a moment to do so – whether it's to renew your license, change your mailing address, verify licensure, or read past and present issues of the "DAPE News." You'll be pleasantly surprised with the information that is available at your fingertips!

Are You One of Those
Arrogant Engineers (or Architects)?

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

As many of you are aware, the DAPE Council sponsors periodic partnering workshops with permitting officials from all over the state. One was recently held for the permitting officials in the Sussex County area, which this writer had the opportunity to attend. My participation in such was only one of many that I've attended over the years. The purpose of the workshops is for providing an opportunity for the members of Council and its Law Enforcement and Ethics Committee to hear what problems the permitting officials are running into, regarding the submittal of engineering plans, and discuss how DAPE can assist in resolving these problems.

One problem that always surfaces is the reputed "who are you to question my design" attitude that many engineers and architects have when a plan reviewer questions one or more concerns that he or she may have regarding a submittal. In addition, when push comes to shove, the concerns being questioned are most often proven to having been justified, with the end result leading to design revisions needed to correct the concerns involved.

One of the other objectives of these workshops is to provide an opportunity for DAPE representatives to make permitting officials aware of some of the more current and common practice of engineering violations that DAPE is aware of. These generally are distributed to plan reviewers in the form of a "Practice Alert". Their function is to show what drawing features a plan reviewer should be on the alert for in an effort to detect common design deficiencies.

There are lessons to be learned from all of this by all of us. Here are just a few of them:

- Do your homework before submitting a set of plans for permitting. Know beforehand what's required by code. Don't depend on the permitting officials to lead you through the requirements.

- The best time to catch a mistake or oversight is before it gets built, not after. Be open and cooperative when a design of yours is being challenged. It could save you a lot of grief, not to mention an insurance claim. In most cases, when an engineer or architect becomes aggressive when his or her design is questioned, the permitting officials indicate that the design usually turns out to be deficient.
- Do not practice in areas that you're not proficient in and can provide ample proof of such, if challenged.

DID YOU KNOW????

- China has 4,376,167 undergraduates in engineering programs, of which about 1 million of these are awarded degrees annually vs. the 62,000 BS engineering degrees awarded annually in the United States.
- 33% of all undergraduates in China are in engineering vs. less than 15% in the USA.
- There are 1,274 undergraduate mechanical engineering programs in China vs. 308 ABET programs in USA.
- Mechanical engineering is the most popular engineering major

(Source: Global Engineering, 2/26/06)



REPORT FROM: THE SIX SIGMA AD-HOC COMMITTEE (CONTINUED PROFESSIONAL COMPETENCY)

By Karen A. Maxson, P.E., Chair

The Six-Sigma Ad-Hoc Committee on Continued Professional Competency (CPC) completed its charter with the submittal of their final report to the Council on March 31, 2006. Council approved a motion "to accept the report for further review and consideration by the respective committees within Council". President Jones thanked the committee members for

their efforts and then disbanded the Ad-Hoc Committee. For background information on this committee and its charter, reference an article in the Summer 2005 issue of the newsletter.

Conclusions:

During the Focus Group sessions, the permitting officials provided examples of incompetent practice of engineering by Delaware registrants. However, many more examples of substandard performance (engineering work that was not in compliance with pertinent codes or regulations), as well as unethical behavior were described by the Focus Group participants. Therefore, the root causes or the reasons for these issues that were given by the permitting officials had little to do with the engineering education of the Delaware Professional Engineers. Most of the responses from the permitting officials fell into one of the following root causes:

1. Lack of Operating Principles within an Engineering Firm:
 - Lack of quality assurance checks prior to sealing documents
 - Confusion regarding the role of "engineer in charge" and diffusion of the responsibilities of the "engineer in charge"
 - Turnover of personnel without training, supervision, mentoring, etc.
2. PE Sealing/Stamping Issues
 - Plan stamping
 - Confusion regarding what requires a PE seal
 - Misunderstandings regarding the responsibilities/liabilities of sealing/stamping
3. Lack of Knowledge regarding Codes/Regulations
 - Inappropriate usage of codes
 - Not using the up-to-date codes/regulations
 - Incomplete understanding of the requirements
4. Unethical Behavior
 - Due to pressures from customer to meet cost budgets or time constraints
 - Misrepresentation of capabilities

Through the Six Sigma process and gaining "voice of the customer" data (input from the Focus Groups) the committee concluded that mandatory CPC (Continued Professional Competency) is not a solution for reducing the practice of incompetent engineering. The public would best be served if the cases of incompetence or unethical behavior were submitted to DAPE for investigation. The committee believes that complaints are not being submitted because the DAPE disciplinary process is perceived by potential complainants to be

overwhelming and only worth the effort for a few severe cases.

Our committee invited the Law Enforcement/Ethics committee to discuss the potential for alternative disciplinary processes that would more effectively and efficiently address incompetence and deter such practices in the future. LE/E committee presented three proposals they had recently developed for alternative disciplinary processes. Our committee concluded these proposals would be beneficial and supported LE/E presentation of the proposals at the Feb 21, 2006 Law Revision Workshop. The alternative disciplinary processes were approved at the Workshop and language is being developed by the Government Affairs committee to include them in the law.

Upon further review of our current law, the committee determined that the issue of substandard performance is not addressed and therefore can not currently be the basis for a disciplinary action by DAPE Council.

Recommendations:

The following is an excerpt from the Recommendations section of the Focus Group Final Report prepared by the University of Delaware Center for Applied Demography and Survey Research:

"From the perspective of focus group participants, it is not the incompetence of an individual engineer which is the root cause of substandard performance.

Performance problems appear to be more closely linked with two causes:

- A lack of understanding or inattention to the ethical underpinnings of engineering practice;
- The diffusion of responsibility for engineering quality within the complex organizations that characterize today's engineering services."

With the input from the Focus Groups in mind, the committee recommends to Council the following actions:

1. Continue to support the addition of the "alternative disciplinary processes" into our law.
2. Focus the next workshop (by the External Affairs committee) on the new/pending changes in the law regarding the alternative disciplinary processes.

3. Inform the Association via an article in the DAPE newsletter summarizing the conclusions and recommendations of the Six Sigma Ad-Hoc committee.
4. Provide an article in each edition (if possible) of the DAPE newsletter that addresses one of the four root causes identified in the Focus Group sessions. These articles could include examples of disciplinary cases involving unethical behavior (from DE or other states), highlighting the various elements of our Code of Ethics, information on ethics courses or seminars offered by other organizations, examples of plan stamping, explanation of the role/responsibility of "engineer in charge", etc.
5. Modify the law to address the issue of "substandard performance". Specifically, the committee recommends that "Substandard Performance" be defined in Section 2803 as "the continued practice of submitting engineering work that is not in compliance with pertinent codes or regulations". At the same time, modify Section 2823 (a) (2) to read as follows:

"(2) Any gross negligence, incompetence, substandard performance or misconduct in the practice of engineering."
6. Conduct another Focus Group session in 5 to 7 years to determine if incompetent practice or substandard performance in engineering in Delaware has decreased or not. Responses from the permitting officials should once again be considered for further improvements.
7. Discontinue the pursuit of mandatory CPC requirements, unless additional and compelling data is presented.

ELECTION BALLOTS ARE COMING!

The 2006 Council election ballots will be mailed by June 15th to the licensees that live or work in Delaware.

In this year's election, you will have the opportunity to vote for the following:

Civil Eng. seat:

Ronnie Carpenter, P.E.
Edwin Kuipers, P.E.
Gregory Pawlowski, P.E.

Industry seat: Charles McAllister, P.E.

New Castle Co. seat: Robert McClure, P.E.
Martin Markiewitz, P.E.

Sussex Co. seat: Michael Cotten, P.E.
Zachary Crouch, P.E.

The term of each of these seats is four years, with the exception of the Sussex County seat which will be for two years to complete the initial term of this seat.

Look for your ballot in the mail. Your vote does count. Please return your ballot to the DAPE office by **July 15th**.

LAW ENFORCEMENT ACTIVITY

The Law Enforcement/Ethics Committee members gather evidence, conduct investigations and participate in monthly meetings to resolve enforcement issues. The unique technical expertise of each committee member is invaluable.

Over the past quarter, the following cases, after investigation, were recommended for closure:

04/040 -- Unlicensed practice -- Certificate of Authorization issued to firm.

05/002 -- Unlicensed practice -- DAPE has no jurisdiction over firm; sent to Attorney General's office for further legal action.

05/018 -- Improper Name – no C/A -- Firm is no longer in business.

05/029 -- Providing false information – Information has been corrected.

06/004 -- Publication listing – no C/A -- Firm has been issued a Certificate of Authorization.

06/005 – Publication listing – no C/A -- Firm has been issued a Certificate of Authorization.

06/006 -- Publication listing – no C/A -- Firm has been issued a Certificate of Authorization.

06/007 -- Publication listing – no C/A – Firm has been issued a Certificate of Authorization.

The goal of the LE/E Committee is to assist individuals and/or firms to come into compliance with the law. As indicated by the cases listed, we have been successful in achieving this goal with the assistance of those involved.

Legislative Update:

Enforcement is as much a part of licensure as education, examination and experience. This is reflected in the provisions of the most recent draft legislation that will be introduced to the legislature in the near future.

Upon approval, Senate Bill 319 will amend the law to provide Council authority to:

- Refuse/reject an applicant if applicant practiced engineering without being licensed;
- **Levy fines**, in addition to requiring successful completion of education or training, refuse licensure, warn, reprimand, censure or **place on probation** in disciplinary matters;
- Expedite disciplinary matters by **issuance of an Administrative Order, Consent Agreement, or hearing before a disciplinary committee**, if waiving the formal hearing;
- Impose civil disciplinary penalties from a minimum of a reprimand to the **maximum civil penalty of \$5,000**.
- Provide whistleblower protection for those filing a complaint or testifying in a hearing.

The rationale for these revisions is simple: compliance with the law is mandated. For those that don't comply, strengthening the disciplinary powers of Council is necessary to swiftly resolve enforcement issues.

Look for additional details of this legislation in the next issue of the "DAPE NEWS" when the legislation is enacted.

PUBLIC OUTREACH EFFORTS

Several of DAPE's committees are responsible for outreaching with the public. This typically is accomplished either through our licensure presentations to junior and senior engineering students

at the University of Delaware; or to engineering students at Delaware Technical & Community College; or the employees of the Delaware Department of Transportation; or our workshops with building and permitting officials in each of the three counties of the state.

Licensure Presentations:

University of Delaware -- In the spring of each year representatives from the DAPE Council and its membership provide a presentation to each of the engineering departments at the University of Delaware. This year alone approximately 300 students were exposed to the licensure process and the advantages of licensure. Many of these students are exposed to the issue of licensure at these presentations for the first time. The presentations were well received and many students indicated an interest in taking the FE examination in their senior year. It is critical that we encourage those students in engineering programs to take the first step on the licensure path – taking the Fundamentals of Engineering examination.

Delaware Technical & Community College -- At the recommendation of one of our members, we arranged a similar presentation to the students in the engineering programs at Delaware Technical & Community College. This presentation was well received and we will continue this pursuit as well.

Delaware Department of Transportation – This presentation was adapted to the audience of those beginning their careers in DelDOT. It focused more on the process of licensure, since this audience is in the midst of their careers and recognize the advantages of being licensed. We will continue the tradition of addressing licensure issues with this group.

We are extremely appreciative for the opportunity to make these presentations.

Workshops:

Our External Affairs Committee, along with the Law Enforcement/Ethics Committee presents workshops in Sussex, Kent and New Castle counties. These workshops are designed to focus on specific engineering issues in each of the respective counties, as well as to bring these officials up-to-date with revisions to the law, resources available, the complaint process, and to discover methods of mutually improving the protection of the life, health and safety of the citizens of Delaware.

We have included the facility managers in each of the school districts, as well as others, to continue outreaching to those that utilize the services of an engineer.

In addition to our 2006 legislative initiatives, we discussed our expedited enforcement processes, sealing plans, standard of care, plan stamping, ethics, and when a complaint should be filed.

It is critical to our task of regulation of the profession, that we have the assistance of permitting/building officials, school district officials, hospital and medical facilities, other state agencies, the DAPE membership and the public.

We will continue to step up our public outreach efforts. It's that important!

INTERESTED IN PROCTORING???

As you are aware, exams are administered each April and October, and without the proctoring assistance of the DAPE membership, we would be unable to provide a quality, secure exam administration.

If you are interested in proctoring the October 27-28, 2006 exams, please contact our office via email (office@dape.org), phone (302-368-6708) or fax (302-368-6710).

We appreciate it. The examinees appreciate it. And you'll be making a wonderful contribution to your profession!

Contact us today!

REMINDER:

**ALL LICENSES EXPIRE JUNE 30, 2006.
MAKE SURE BOTH YOU AND YOUR
FIRM HAVE RENEWED. IT'S EASY, IT'S
FAST AND IT'S THE LAW!**

The Complaint Process in Delaware

The DAPE Council, through its Law Enforcement /Ethics Committee, is responsible for investigating complaints received alleging a violation of Delaware's licensing law and/or the engineering Code of Ethics. The Council has the authority to discipline its licensees.

Any identified member of the public or of the Association is encouraged to contact the DAPE office, either orally or in writing, regarding a complaint concerning any aspect of the practice of engineering.

To file a complaint orally, contact the DAPE office (302-368-6708). With oral complaints, DAPE staff will complete a complaint form with the information provided and return it to the complainant for review and approval prior to processing it. Written complaints are preferred. A complaint form is available from the DAPE office or may be downloaded from DAPE's website (www.dape.org). A written complaint may be mailed, faxed, e-mailed or otherwise delivered to the DAPE office. **Anonymous complaints, oral or written, are not accepted.**

A complaint requires specific information about work performed, project location, problems encountered, any resolution attempts and dated facts. It's important to provide as much data as possible; particularly anything that you believe will assist with the Committee's investigation.

The Law Enforcement/Ethics Committee will forward written acknowledgement to the complainant within one week of receipt of the complaint.

The Law Enforcement/Ethics Committee will make reasonable efforts to maintain anonymity of the complainant and of the person complained against while it investigates the allegation. However, if the complaint is found warranted, the name of the complainant and of the person complained against may become available under the Delaware Freedom of Information Act.

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For more information, see Delaware's licensing law, §2824.

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