TO: NSPE Board of Directors

cc: House of Delegates
        NSPE Committee, Task Force, Council and Interest Group Chairs
        State Society Presidents and Presidents-elect
        State Society Executives Council
        NSPE Past Presidents

FROM: Mark J. Golden, FASAE, CAE
Executive Director

DATE: August 2, 2017

RE: Board Update: July 1-31, 2017

Today is the day! I hope you joined us in celebrating the achievements and dedication of PEs around the world during the second annual licensed Professional Engineers Day. It was an opportunity to showcase your PE License and dedication to protecting the public health, safety, and welfare.

Thank you to all the state leaders and rank-and-file members who used the #LicensedPEDay hashtag on Twitter, Facebook, or Instagram to:

- Upload a photo or video of yourself, telling the world why you decided to become a PE;
- Post photos or videos of your team of PEs;
- Share your reasons for hiring PEs;
- Give special recognition to your PEs in the workplace or on the job; and
- Educate your colleagues about the importance of the PE license

Together we all raised awareness about what it means to be a PE, recognize licensed PEs, and show appreciation for the work you and your peers do each and every day. To facilitate this happening, NSPE put together PE Day logos and graphics for your own use on websites, social media, and in printed communications.

At the General Assembly in Atlanta on Saturday, July 22, 2017 the NSPE House of Delegates received reports, engaged in strategic dialogue on a range of matters related to advocacy, professional advancement, ethics, uniting the PE community, and championing the PE license, engaged in dialogue with technical society representatives, heard from international society representatives, recognized leadership contributions, and elected directors and officers.

The table/small group discussion feedback forms and presentation from the HoD caucus have been posted to the State Leaders community.

Specific actions taken by the Assembly included:

- Approving the proposed Professional Policy on Diversity (voice vote)
• Approving the proposed Membership Business Model for implementation (roll call vote: 81 - 10)

Minutes are being prepared and will be distributed shortly.

The House of Delegate’s overwhelming approval of the new membership business model marked a significant turning point for NSPE and represents the culmination of 18 months of active leadership from all levels of the association. This action sets in motion an evolution that revitalizes NSPE as a system of partners that are neither national-centric nor state-centric, but PE-centric.

The new membership model is not perfect—no product of fallible humans could be. But it is the product of a serious and careful effort over the past year and a half to make the best decisions possible. And to the army of state leaders (staff and volunteer) for the hundreds of hours they have invested in designing the model, my sincere thank you.

And to all the members of the professional engineering profession, whether members of NSPE or not, we’re just getting started. We’ve retooled our craft. We remain resolutely aimed at true north. And we intend to blow you away with what we accomplish next.

By any measure, the Professional Engineering Conference 2017 in Atlanta was a great success. Total attendance was 363, virtually identical to our last standalone annual in Seattle in 2015 and achieved 95% of budgeted revenue. 241 attended the awesome Night at the Aquarium and 134 attended the installation luncheon.

Demographics on attendees by age (engineers only) appear the right.

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<th>Age</th>
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The member traveling farthest to participate was Jeff Wheaton from Guam.

State with the most attendees? Host state Georgia with 43, followed by Texas with 22, and Florida with 11.

The photos from the conference are now available for viewing and downloading via an online gallery set up by our photographer. The photos are divided into albums based on days/events. You are free to download any photos you wish, but if you plan to reproduce them in a newsletter or other shared format, please credit "JKlein Photography" on any such use of the images.

National will be sharing this link via various other communication channels, but please feel free to pass it along if anyone (i.e., an employer) has requested them or may be interested in seeing all of the exciting events at PECon.

Championing the PE License

NSPE expressed disappointment and concern that a bill on the testing and deployment of highly automated vehicles will allow automakers to deploy the vehicles without first addressing the major safety, technological, and ethical implications.
The draft legislation, the *Highly Automated Vehicle Testing and Deployment Act of 2017*, is being considered by the House Energy and Commerce Committee’s Subcommittee on Digital Commerce and Consumer Protection. Recognizing the promise of highly automated vehicles, NSPE has been a leading advocate on the need to place the public health, safety, and welfare first, and require a licensed professional engineer to play a key role in the development, testing, and safety certification of autonomous vehicles. NSPE is urging defeat of the legislation in its current form until these concerns are addressed. NSPE has been proactively working with Congress to address these vital issues. Rep. David McKinley, PE (R-WV), a longtime NSPE member, has been raising these issues with the subcommittee. In particular, NSPE and McKinley have expressed concerns about the lack of a requirement for a third-party certification by someone in the decision-making chain (i.e., a professional engineer) who has a duty that puts public safety first and overrides competitive pressures. You can watch Rep. McKinley’s remarks on this topic. Update: The Committee did pass the bill.

NSPE will continue to proactively advocate for the role of the professional engineer in ensuring the public health, safety, and welfare is of paramount importance in the deployment of highly automated vehicles.

NSPE is actively working to defeat federal legislation that would undermine the role of the professional engineer in making final decisions about the correct type of piping to use in our nation’s water systems. NSPE and other engineering and water utility associations sent a letter to Congress and House Energy and Commerce Committee Chairman Greg Walden (R-OR), opposing materials-preference legislation that—under the guise of promoting “open competition”—seeks to legislate technical decisions related to pipes and other materials that should be made by licensed engineers and local communities.

“The marketplace for pipes and other materials is already open and competitive, which calls into question the stated purpose of this legislation,” the letter states. “More importantly, however, technical decisions on materials such as pipes should not be made in the political arena, but rather by professional engineers based on the unique needs of each system, taking into account critical factors such as structural integrity, soil compatibility, maintenance and life cycle costs.”

NSPE has been fighting this issue at the state level, collaborating with our state societies to successfully defeat this legislation. NSPE will continue to fight any effort to undermine the professional engineer and the public health, safety, and welfare.

NSPE is fighting efforts to stop a critical final rule on oil and natural gas emissions that require a professional engineer to perform critical functions to meet performance standards. On July 12, NSPE President Kodi Jean Verhalen, PE, Esq., F. NSPE submitted public comment to the Environmental Protection Agency regarding its reconsideration of the requirement for a professional engineer to certify the closed vent system design and capacity assessment.

In the public comment, Verhalen writes, “There is no reason or basis for displacing properly enacted final rules at this time; to stay the rules requiring involvement of licensed professional engineers creates real and unnecessary risks to the public health, safety, and welfare in the interim.”
NSPE and the professional engineers it represents share a common purpose with the EPA in protecting the health, safety, and welfare of the public and we strongly urge the EPA to enforce the current requirements until and unless a new rulemaking is undertaken and will be fully engaged in the ongoing proceedings. I had an opportunity to reiterate these concerns when I testified at an EPA hearing regarding this issue on July 10th.

NSPE responded to a July 6th op-ed in the Wall Street Journal attacking the concept of licensure with a letter to the editor on July 13th:

Rule Reversal: How the Feds Can Challenge State Regulation (July 6, 2017) unfortunately perpetuates a common narrative that all licensure requirements are barriers to entry and should be removed. A more informed and deliberative examination of the professional landscape shows that those professions that are necessary to protect the public health, safety, and welfare need licensing requirements to ensure that only technically and professionally qualified professionals individuals are practicing in their fields. While the work of professional engineers (PEs)—like that of doctors and nurses—clearly affects the public health, safety, and welfare, it is not uncommon to simplistically link highly educated and trained PEs with barbers and cosmetologists in the debate over occupational licensure. PEs conceptualize, plan, design and construct bridges, tunnels, buildings, waste-water treatment facilities, plants, factories, processing centers, and many other public and private development projects. The PE license demonstrates a commitment to high standards of engineering practice and ethical conduct by individuals possessing the necessary education, experience, and qualifications to provide these critical engineering services to the public. The narrative around licensure needs to change and recognize the vital role played by our regulatory system in protecting the public health, safety, and welfare.

Ethical Guide to the Profession

If you're an engineer working on a risk assessment team for the development of a driverless/autonomous vehicles operating system, what's your ethical obligation when determining the safety risks to passengers, pedestrians, or other drivers in the event of an unavoidable crash?

Beth Hodgson, P.E., and her staff at Spring Environmental Inc. in Spokane, Washington, developed a PowerPoint presentation (with embedded sound) to show how an engineer's ethical obligation is to advise the risk assessment team in ways that maintain public welfare overall. This presentation garnered them a win in the 2017 Milton F. Lunch Ethics Contest. (See Winning Entry-2017 with audio.) Hodgson's team members included Julianne Gehlen, Amy Hooper, John Quinn, E.I.T., Jenelle R. P. Scott, P.E., Gabriel Sedbery, E.I.T., and Elizabeth Speare, E.I.T.

This ethical dilemma was just one of four situations for which NSPE members could test their knowledge of engineering ethics against other experienced PEs and engineering students. The contest was revamped this year to allow for more creative ways for participants to show off their ethics know-how. Contestants could choose one of four different situations dealing with the ethics of engineers, demonstrating their understanding of the facts and the NSPE Code of Ethics for Engineers through an essay, video, photo essay, poster, or PowerPoint presentation.

Contestants were asked to read the facts of the case, then develop a discussion and conclusion to respond to the included question(s). They were required to provide references, citing specific sections of the NSPE Code of Ethics for Engineers. Hodgson and her team will receive a certificate, recognition in PE magazine, and an award of $1,000.
The entries were judged by the following criteria:

- Quality of the entry in form and presentation. Clarity, composition, expression, etc. are important. The essay, video, photo essay, poster, or PowerPoint should be a finished piece and "ready to go."

- Demonstration of understanding the implications concerning ethical or unethical behavior.

- Comprehensive analysis of the case and arguments supporting conclusions. This may include new thoughts or other expressions.

**Powering Professional Advancement**

The event in Atlanta has come to an end, but that doesn’t mean your PECon experience has to. Not only can you find the conference presentations in the [PE Conference Community](#) but you can continue to connect and network with fellow conference attendees and presenters. You can ask follow-up questions to presenters or share resources and articles on topics discussed at the conference.

And don't forget to claim your PDH credits from PECon. You can access the PDH Claimer from the PE Conference app or via the [web from any computer](#). Just click on the PDH Claimer to get started. (You will be prompted to log in using your NSPE login credentials.) Then select the dates and sessions you attended, check the box in the lower left corner affirming the sessions you attended, click the Report CE button in the lower right corner of the screen, and print your individual certificates and summary.

If you have not already done so, please also take 10 minutes to complete the PE Conference evaluation. Your feedback is valued and will be used to plan next year's conference. Those who complete the evaluation will be entered to win a $100 gift card.

The NSPE Educational Foundation fund raiser at PECon ended up with $8,575 in income from drawing donations (including $325 in cash donations from folks who didn't want tickets). For those who did not attend the conference, Bob Miller again took one for the team and once more donned the infamous black dress from the Foundation’s 2013 campaign to secure a pledge from Kodi Verhalen for a $2,500 donation.

So, the fundraiser itself exceeded our $8000 goal and the pledge puts us at $11,075 total. These donations will be used to fund scholarships from the Foundation in the years ahead.
Boxwood (the platform supporting NSPE’s Job Board) has partnered with Google in a new initiative called Google for Jobs. What this means for NSPE members and state societies who use national’s online career center resources is that jobs posted on the NSPE Career Center will also get listed on Google. This will drive traffic to the career center, which benefits both the association and users. Here’s a screenshot of what you’ll see after searching for “professional engineering jobs” on Google.

Let me again remind State Societies that they can post and promote state conferences and events on the NSPE website event page as part of the PE Institute. To have your state society events listed, please fill out the education listing program online form. A link to the form is also located at the top of the PE Institute webpage.

Congratulations to the Vermont Society of Professional Engineers for successful passage of continuing education requirements (30 PDHs every two years). Rules are effective August 1st, impacting renewals starting August 1, 2018. 15 PDHs will be required for this first renewal under the new rules.

**Uniting the PE Community**

Social media was a critical element of the 2017 PE Conference in Atlanta. A brief video recap of the #PECON17 hashtag provides a nice sampling of the content, and indicates that 454 tweets were generated with the hashtag, creating 396,288 potential impressions.

Attached to this memo is the quarterly report and analytics for the NSPE website for April through June 2017. During that period, the site had 199,218 visitors to the website, generating 274,338 sessions and 674,070-page views. On average, users viewed 2.46 pages per session with an average session duration of 2.09 minutes.

A detailed memo explaining the differences between the insurance coverage provided under the NSPE Commercial General Liability Insurance and the separate and optional Not-For-Profit Management Liability Insurance Policy currently offered to state societies has been distributed to all state societies and been posted to the community. This memo is intended to provide you with a clearer understanding of the fundamental differences between the two types of policies so that you can make an informed decision about selecting and maintaining appropriate insurance for your state society.

Membership staff has reached out to state society staff in preparations for implementation of an option for automatic membership renewals, concurrent with the new membership models roll out (beginning the offering in April invoices created for the July renewals).
And remember, you always have access to NSPE leadership resources in the Leadership Toolbox. This includes talking point scripts and presentations for use by NSPE officers, board members, and other leaders during state visits, chapter meetings, or other venues to promote NSPE and its activities, updated on an at least quarterly basis. Current board members can access an online library of board meeting materials (past, current and future) through the online board book site, (BoardBookIt).

If you want to review NSPE’s history and how that has been translated into current plans with a future-focus, NSPE’s purpose, mission, vision and a history of the Race for Relevance and the resulting Strategic Plan is summarized in a section called “Who We Are and What We Do.”
NSPE.org Quarterly Report  
FY 2016-17 Q4 Report  
(April - June 2017)

The purpose of this report is to help us know our visitors and how our website is performing. The key findings are listed at the beginning of the report.

**Key findings of this report:**

- 199,218 users visited the website, generating 274,338 sessions, 674,070 pageviews.
- On average, users viewed 2.46 pages per session with an average session duration of 2.09 minutes.
- Returning visitors (30.7%) stayed about the same since the last quarter (30.1%).
- 67.5% of the traffic to NSPE.org was the result of searches (Google, Bing, Yahoo). The following key words were used in an external search that brought people to the website: NSPE; join now; pe; professional engineer; national society of professional engineers; NSPE code of ethics; engineering ethics; engineering facts; pe license; professional engineer license; pe certification.
- Top ten most visited pages: What is a PE? (47,963 sessions); Code of Ethics (36,832 sessions); homepage (27,617 sessions); How to Get Licensed (13,364); Ten Exciting and Fun Facts About Engineering (8,375 sessions); Demonstrating Qualifying Engineering Experience for Licensure (7,100 sessions); Licensure (6,806 sessions); Licensure FAQs (5,398 sessions); Join Now (4,697 sessions); Board of Ethical Review Cases (3,359 sessions).
- Most popular download: Code of Ethics for Engineers (7,433 downloads)  

**EFFECT/IMPACT**

1. How many people visited the website?

199,218 users visited the website, generating 274,338 sessions and 674,070 pageviews.

How visitors flow: Visits to the site are highest Monday, Tuesday, and Wednesday, then begin to fall off with Saturday being the least visited day of the week. The above graph shows a drop in visits over the weekend.

The geographical distribution of visitors is mostly from the US (212, 624 sessions-77.50%), followed by India (3.86%), Malaysia (1.77%), Philippines (1.43%), Canada (1.35%), United Kingdom (0.98%), and other countries make up less than 14% of the distribution: Nigeria, Pakistan, Saudi Arabia, Mexico, Japan and many more.
PERFORMANCE/ENGAGEMENT

2. How engaged were visitors while on NSPE.org? There’s a few metrics to look at for engagement:

- **Bounce Rate** 59.74%
- **Average pages per session** 2.46
- **Average time on site** 2.09 minutes
- **Percent new visitors** 69.3% vs. **returning visitors** 30.7%

Bounce rate is the percent of visitors who look at only one page on the site, and then immediately left. This can be a measure of engagement. High bounce rates can mean the content didn’t live up to people’s expectations. High bounce rates of about 70% can indicate the content doesn’t match people’s expectations. The bounce rate is about the same this quarter (59.74%) compared to last quarter (59.65%).

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Returning visitors (30.7%) is slightly higher from the last quarter (30.1%), but continues to indicate that visitors are coming back to the website because they find the content helpful.

**TRAFFIC SOURCES**

3. Where do these visitors come from?

67.5% of visitors came from search (Google=61.84%; Bing; Yahoo), 17.53% came directly to the site (by typing in the address or using bookmarks or e-mail links), and the remaining 13.79% came from links on other websites (referrals – all websites that link to our site.) 1.16% of the visitors came from social media.

17.71% of traffic is coming from mobile devices and 1.77% of traffic is coming from tablet. This information can help drive decisions when developing mobile apps. Apple iPhone accounts for 43.14% of the mobile devices.

55.12% of visitors are using Chrome as a browser, followed by Safari (16.53%), Internet Explorer (13.95%), Firefox (7.34%), Edge (3.81%) and a few others.

**SOCIAL TRAFFIC**

4. Where does social traffic originate? We can identify the social networks where people engage with our content. This section will help us learn about each and identify our best performing content on each social network.

Social media accounts for 1.16% of referrals or 3,176 sessions. Facebook makes up the majority with 1,538 sessions, followed by LinkedIn (666 sessions), Twitter (59 sessions), on the social networks.

On Facebook with 1,538 sessions, people shared links to the following pages: Code of Ethics (216 sessions); NSPE.org (200 sessions); What is a PE (196 sessions); New Faces of Engineering (94 sessions); Threats to Professional Licensure (87 sessions); Board of Ethical Review Cases (69 sessions).

On LinkedIn with 666 sessions, people shared links to various pages. The most popular were NSPE.org, Threats to Professional Licensure, Professional Engineers Conference, New Faces of Engineering, Professional Engineers Day, and various Latest News pages.

On Twitter with 509 sessions, people shared links mostly to NSPE.org, other shared links include Professional Engineers Day, PE Magazine articles, various pages under Issues and Advocacy, and others.

**SEARCH TERMS**

5. What were our users looking for? What keywords did people search for that brought them to the website?

The following is a list of external search words: NSPE; join now; pe; professional engineer; national society of professional engineers; NSPE code of ethics; engineering ethics; engineering facts; pe license; professional engineer license; pe certification; engineering code of ethics; professional engineering license; pe exam; p.e.; free membership of engineering societies; quiz on national society of professional engineers; code of conduct for engineers; facts about engineers; facts about engineering; pe magazine; professional engineer requirements; civil engineer license; professional engineers; engineers creed; how to become a professional engineer; pe engineer; professional engineering; what is a pe.

**BEGINNINGS**
6. Where do visits begin? What percentage started on the homepage? This is good to know for your first impression from users.

17.48% of traffic to the site began on the “What is a PE” page; 13.43% began on the “Code of Ethics” page; 10.07% began on the homepage; 4.87% on the “How to Get Licensed” page; and 3.05% began on the “Ten Fun and Exciting Facts About Engineering” page.

80% of the visits that began on a “What is a PE” page left the site without viewing any other pages. The remaining visitors continued to other sections of the sites: How to Get Licensed; Licensing Boards; Licensure.

CONTENT INTERESTS

7. What pages are users viewing?

Top ten most visited pages: What is a PE? (47,963 sessions); Code of Ethics (36,832 sessions); homepage (27,617 sessions); How to Get Licensed (13,364 sessions); Ten Fun and Exciting Facts About Engineering (8,375 sessions); Demonstrating Qualifying Engineering Experience for Licensure (7,100 sessions); Licensure (6,806 sessions); Licensure FAQs (5,398 sessions); Join Now (4,697 sessions) and, Board of Ethical Review Cases (3,359 sessions).

Primary navigation sections: Resources (51.44%), Eweb (Shop NSPE and My Account Profile 17.45%), Membership (9.41%) received 78.3% of the total pageviews.

Within Resources on the primary navigation “Licensure” and “Ethics” received the most page views.

Within Membership on the primary navigation “Join Now”, “About NSPE”, and “Member Benefits” received the most page views.

Most popular download: Code of Ethics for Engineers PDF (7,433)


SHARING & PRINTING

8. What content is being shared and printed? Website visitors can easily share or print content on the website using the share icons on all pages. Visitors have printed 186 pages and shared several pages using the following channels: Facebook (101); Twitter (42); LinkedIn (41); and, Email (29).

There’s a wide range of pages being shared and printed on the site.

The following pages are being printed: Code of Ethics; What is a PE; Demonstrating Qualifying New Faces of Engineering; Conference Glance.

The following are a few pages that are being shared on Facebook and Twitter: What is a PE; PE Magazine; Code of Ethics; Member Benefits; How to Get Licensed.

HOMEPAGE ANALYTICS

9. Where are users going from the homepage? Once on the homepage on the left side navigation, visitors navigated to:

- Log In (12%),
A small percentage of visitors (0.5%) clicked on links on the right hand column of the page.

The bounce rate on the homepage is 34.87%, an excellent indication that the page effectively encourages visitors to view more pages and dig deeper into the site. Website visitors spend an average of 1.31 minutes on the homepage.