

Montana Society of Engineers

A state society of the National Society of Professional Engineers



Founded 1887

President's Message: Industrial Exemption?

Stephen T. Smith, PE, President

The Montana Society of Engineers exists to support the "professional" aspect of engineering in Montana. The Preamble to our Constitution and Bylaws states:

"Recognizing that service to the public, to the state and to the profession is a fundamental obligation of the professional engineer, the Society of Professional Engineers does hereby dedicate itself to the promotion and protection of the profession of engineering as a social and economic influence vital to the welfare of the community, the State of Montana, the United States of America and all mankind."

The National Society of Engineers (NSPE), our parent organization, has recently committed to the elimination of the industrial exemption in state laws that allow engineers employed by manufacturing businesses or utilities to perform engineering work without being licensed. I happen to think this is a worthwhile effort. Clearly, actions taken by engineers working for manufacturers or utilities have the potential to impact public safety, as recent oil spills and natural gas explosions have demonstrated. I think the same professional standards, including licensure and continuing education, make sense in these fields as they do in other engineering jobs. Whether you agree or not, this is an important issue for engineers. Your opinion will only count if you get involved.

In this election year, I find it disturbing that science seems to be displaced by belief. Is it still possible to debate global warming based on the available science and still be a conservative? Or, can you be a democrat and want to open up areas for oil or gas development? Or,

can any politician be honest about what we need to do to balance the U.S. budget and still be elected? There has been recent debate in the Environmental Consulting Professionals group of LinkedIn with the subject line; "Republicans do not want to hear from scientists on climate." While our positions may not be welcomed, part of being "professionals" is "speaking truth to power." We, as individuals, have a social and professional responsibility to be involved and to speak up.

Another aspect of "professional" is continuing education. MSE, along with other engineering organizations, supports the Joint Engineers Conference each fall in Helena. MSE will be sponsoring a number of sessions. I will host one on Engineering Ethics. A professor from the University of Utah will offer two sessions on effective written communications based on her research study into "Ethos and Error in Written Engineering Documents." Another U. of Utah professor will present a session on use of visual aids in presentations. A Helena local will make a two session presentation on how to plan and execute strategies for businesses to thrive, which should be great complement to last year's sessions on Engineering Businesses. So, be sure to mark your calendars for the JEC on November 7-9 and take advantage of this opportunity for "professional" development. Note that our MSE annual meeting will take place the evening of November 8, so also plan to attend that will while you are in town for the JEC.

Data based decision making is unfortunately quite rare in the public processes and politics. Our unique engineering perspective is important. Don't be shy. Speak up and be heard! Be proud to be a Professional Engineer.

March, 2012

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Montana MATHCOUNTS Update!

Dan Munson, PE, MathCounts State & Billings Chapter Coordinator

Teams of 6th, 7th, and 8th grade student Mathletes[®] from middle schools all across Montana competed in the State MATHCOUNTS contest on Thursday, March 8th at MSU in Bozeman. A total of 29 middle schools across the state comprised of 88 students participated. The top four individual Mathletes[®], and the coach of the winning team, won an all-expense paid trip to the MATHCOUNTS National Competition to be held in Orlando.

Amy Chou from Bozeman Sacajawea Middle School, Caleb Noble and Kira Parker from CR Anderson Middle School in Helena, and Carolyn Graham from Missoula Washington Middle School won the top honors at the State Competition this year. These four students, along with Missoula Washington math coach Kari Boucher, will represent Montana as our official state team at the National MATHCOUNTS Competition in Orlando on May 11th. Amy Chou was the Countdown Round winner, and will taking her second trip to the National Competition.

prizes and advanced to the State competition. The winners of this State Competition advance to Orlando on May 11th to represent Montana in the National MATHCOUNTS Competition and compete for individual and team national titles against other top middle school math students representing the 50 states, the District of Columbia, U.S. Territories and schools from the Department of Defense and State Department.

MATHCOUNTS is a combination math coaching and competition program. Students are tested on such topics as probability, statistics, linear algebra, and polynomials. The competition consists of written tests and a fast-paced oral match.

The purpose of the MATHCOUNTS program is to motivate junior high school students in mathematics and interest them in technology related careers. It is designed to create interest and enthusiasm in mathematics by creating an environment similar to athletic programs, including intensive training, competition, teamwork and recognition. Widely recognized as an effective middle school mathematics coaching and competition program, MATHCOUNTS is celebrating its 29th Anniversary.

The MATHCOUNTS program is organized by the National Society of Professional Engineers on a national level. Locally, MATHCOUNTS is organized by the Montana Society of Engineers, with local volunteer effort being provided by area engineers, students, and professionals.

Nationally since September, over 500,000 Mathletes have been using materials provided by the MATHCOUNTS Foundation to sharpen their math skills, with the help of their "coaches."

More than six million students have participated in the MATHCOUNTS program since its inception in 1983. Over 17,000 MATHCOUNTS volunteers from the business and education communities annually organize and conduct the program in communities nationwide.

Additional information on MATHCOUNTS is available at www.mathcounts.org.

Just how hard is this math? Try the Problem of the Week on the MATHCOUNTS Web site, www.MATHCOUNTS.org, and click on the site's "Go Figure!" math challenge to really push your skills.

"The purpose of the MATHCOUNTS program is to motivate junior high school students in mathematics and interest them in technology related careers."



2012 State MATHCOUNTS Winners: Coach: Kari Boucher, Carolyn Graham, Amy Chou, Kira Parker, and Caleb Noble

The top teams this year were Missoula Washington, Helena CR Anderson, Bozeman Sacajawea, Billings Riverside, and Lewistown Middle Schools. Jon Graham from Missoula was nominated as the Montana MATHCOUNTS Champion of the year for his innovative and exemplary work with middle school

students in the area, encouraging and motivating many to enjoy math problems and get involved with teambuilding exercises.

According to Dan Munson, State MATHCOUNTS Coordinator, "This competition undoubtedly featured some of the brightest middle school students in our state!" Teachers and students had been preparing for the competition since last September. The students trained within their schools before starting the formal competition. The first level of the competition began in January and early February when over 750 student Mathletes[®] competed within their school to become a member of the "school team". From there, 488 students from 62 middle schools competed at the regional level in February. Winners at the regional level received

Notes from National

Kenneth Phillips, P.E., NSPE
Montana Society of Engineers National Delegate

As the Montana delegate to National, I and all the other State Delegates were asked by the NSPE President to read a book titled *Race for Relevance 5 Radical Changes for Associations*. The main intent of this book is how with today's declining memberships nationally can professional societies survive with declining revenue streams? The book has 5 key steps to make society leadership more efficient and still have relevance to its membership:

- Overhaul the governance model and committee operations.
- Empower the CEO and enhance staff expertise.
- Rigorously define the member market.
- Rationalize programs and services.
- Build a robust technological framework.

The first topic recommends that Boards be comprised of 5 members who are selected based upon skill and not geographic area. By my count NSPE has 18 board members, many of who represent a Region of the nation or an interest group such and they get together quarterly. Plus every year at the National Governance meeting every State and Territory attends and is a voting member. That means that 72 people are flown in, housed and fed for about a half days worth of voting to accept budgets, change a few bylaws and elect new board members. Granted it is good to let States have a voice but in my case with Montana having right at 100 members to pay for my motel, flight and food, it takes about 20% of your MSE dues to pay for motel and half of the per diem and about 10% of your national dues to pay for flight and remainder of the per diem. That doesn't include the paid NSPE staff that put together the conference and work behind the scenes.

Now I am as fiscally conservative as Jack Benny so it does bother me some to spend that kind of cash. I usually spend Thurs, Fri & Sat at the conference as they like to have some training sessions and we always have a design squad where local kids can come and work with engineers to design and build things like ping pong ball catapults. Also on Governance day it feels good representing Montana and to have a chance to vote in things that matter. But is this really something Montana Society can afford? Is it something National can continue to afford?

So the book's most major change is to get away from this model and just have five very qualified members serve as the board and let the

paid staff do what they do so well. The National paid staff members are very good to work with and it's in their best interest of maintaining a job to make sure that the membership is well served. This is exactly what Montana does, we have a part-time Association Manager named, Connie Dempster, and through her knowledge and training, she keeps the society functioning. We have a 5 member board of Directors that meets face to face twice a year and conference calls two other times a year. So in my opinion I think it would be a good thing for National to adopt the five person board. If we were a business and times got tough we would reduce the workforce to survive.

Empower the CEO and staff to do the business of running NSPE is the next topic. The main theme here is do not use staff time tracing off each year doing a new "theme" for the board. Also free up staff from having to organize conferences and meetings. Let the staff run the society and work closely with the board. It works in Montana it can work nationally.

Defining the member market for MSE is fairly simple: We promote and try to be the voice of Licensed Professional engineers. So I don't think this is a factor that we need to address.

Rationalizing programs and services discusses finding what is making financial sense for the organization and stick to those. Don't try and offer convenience store varieties of services when odds are half of them are subsidized by the few products that are valuable to most. In Montana we devote our resources to the Joint Conference and a few members are heavily involved in Mathcounts. Both of these generate a modest revenue stream that when mixed with our very cheap State dues keep MSE alive.

Build a robust technology framework. When I was in Orlando at National two years ago, this young marketing guru spoke at a training session and characterized NSPE as "pale, male & grey" and that our website was a "dinosaur". So we do have to come into the modern era to attract the one thing that we must have to survive and that is recruiting younger engineers. On a State level we are using a website for hosting the Joint Conference and I think that is good. As far as other things we can be doing technologically, I cannot answer because I am a pale, male, grey, and bald dinosaur. I can text, don't have a facebook page, I am clueless about twitter. So we must get a few under thirty year old members that can help take us from the nursing home into the future.

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“Defining the member market for MSE is fairly simple: We promote and try to be the voice of Licensed Professional engineers.”

Montana Legislature

Reviews Board in April

Georgia Brensdal, PE, Vice President

House Bill 525 requires a review of all professional licensing boards; there will be some 30 Boards reviewed in 2011-2012 time frame. The meeting to review the Board of Professional Engineers and Land Surveyors has been scheduled for April 20, 2012. I have gathered some information you should know about the legislation and the upcoming meeting.

What is HB525?

The elements of this bill established the review by the Economic Affairs Interim Committee of all boards twice, one either this interim or next, and the second time four years later. The review starts with the oldest established boards, and that is why the PE Board is up for review in the first interim period. The legislation included criteria to determine when a board meets a public purpose:

- a) Whether the unregulated practice creates a direct, immediate hazard to the public health, safety, or welfare
- b) Whether the scope of practice is readily identifiable...
- c) Whether the profession requires a specialized skill or training for which nationally recognized standards of education and training exist
- d) Whether the qualifications for licensure are justified
- e) Whether a public benefit is provided by licensure
- f) Whether licensure significantly increase the cost of service
- g) Whether public support exists for licensure"

Why is this important to MSE and PE's?

The Board holds key duties related to the engineering profession. The Board sets the qualifications of applicants and the standards of examination for licensing; the Board sits in judgment in hearings for the suspension, revocation, or denial of a license; and the Board requires, verifies and audits continuing education as precondition for renewing licensing. The Board and the Department of Labor provides services to engineers and the general public such as administering licensing processes, maintaining lists and license information to the public, and runs the Board's hearing processes.

The actions of the legislative review can affect the future functions of Board in some key areas. The Committee will be asked by the 2013 Session to make a recommendation on whether to prepare termination legislation for a board if it does meet the requirements through the review

process. Committee members also might suggest combining boards with similar scopes of practice to help relieve the cost of licensing for smaller boards. The committee also may consider restructuring the board so that public members comprise a majority on the board. It is important that the right recommendations be established at the review process going into the general session so that a favorable response is insured. Remember that the Legislature will be looking at some 30 occupational licensing boards.

The Board of PEs is now preparing responses to the questions from the committee to be presented at the meeting. The types of questions are similar to all occupations, and here are some examples probably relevant to us:

- Does a profession or occupation need to be licensed for public health, safety or welfare?
- If a license is necessary (for health, safety, or welfare), does the occupation need a board for oversight?
- Does the profession or occupation have one or more associations that could provide oversight without the need for a licensing board?
- What are the benefits of a board being part of the licensing and discipline process instead of the department handling one or both?
- Are continuing education credits important for public health, safety, or welfare?

In November at the JEC session, the Board and staff presented information to the attendees. At the annual MSE meeting, discussion was held. General consensus was that the Board was beneficial for Montana engineers. Concerns were voiced that the public safety and public benefits of engineering was not generally understood by the public, and that MSE and members can help voice those benefits to the Legislature.

What can MSE members do?

The Legislative Fiscal Division has been directed to gather information to present to the committee. The study plan prepared by the LFD emphasized the importance of input from the licensed public in this review. A survey has been set up on line at leg.mt.gov/eaic. It is also available the Mt. Department of Labor website. Even if you only have time to complete part of the survey, your input will be compiled and presented by the staff to the Committee.

The public comment section has been set on the agenda for 3:15 pm on April 20 in Room 137 of the Capitol Building in Helena. This date and time is likely to change, so check the legislative

Continued to page 5—

What can LICENSED ENGINEERS do?

Provide INPUT:

- Complete survey at www.leg.mt.gov/eaic

AND/OR

- Provide testimony during public comment session set for April 20th at 3:15 pm in Room 137 of the Capitol Building in Helena

NOTE: Confirm this date and time—this is subject to change.

Montana Legislature Reviews Board in April —Continued from Page 4

schedule closer to the date. Several Board members were contacted, and mentioned that no major concerns aimed at the Board of Professional engineers was expected at this meeting. However, they thought the legislative committee was interested from hearing from the practitioners and the associations. The Board members and staff can answer questions and provide updates.

Both the Legislative Division staff and Board members have encouraged MSE to present testimony at the review meeting. MSE officers are planning to prepare and present a short testimony in support of the Board of PE's. Any comments from members will be considered, and/or written testimony from you will be carried to the meeting.

Any of these avenues (LFD staff, EIC meeting, MSE input) can be used to get your comments in front of the committee. Of course you can always contact your local representative, especially if they are on this review committee:

Economic Affairs Interim Committee
PO BOX 201706 Helena, MT 59620-1706 (406) 444-3064 FAX (406) 444-3036
62nd Montana Legislature
SENATE MEMBERS:
JOE BALYEAT, TOM FACEY
EDWARD WALKER, JONATHAN WINDY BOY
HOUSE MEMBERS:
TOM BERRY, CHUCK HUNTER,
CAROLYN SQUIRES, GORDON VANCE

The review of the Board of PE's is expected to be routine and uneventful, however it is important that licensed professionals get their support into the committee at this time to prevent a negative or uninformed decision from the review committee.

Notes from National —Continued from Page 3

Back to the book, we have just completed an online survey about how the State delegates feel about all five of the afore mentioned changes. I support the changes at the National level because in Montana through just trying to survive over the years we have adopted most of what the book suggest. So fellow MSE members how do you feel about changing the National Society? Is it worth the \$1400+ you spend to fly me to some fancy hotel to spend a few hours voting? Is there a better way of representing Montana and assuring that our

needs are met? So as this will be a topic next July in San Diego let me or the MSE Board know if you would like to see a little "value engineering" at the national level. Not to quote a certain Governor but maybe National should be more like Montana?

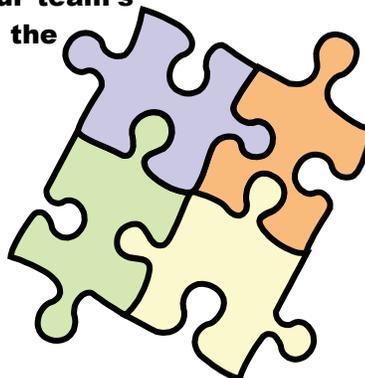
Thank you!

Please email me or the board your thoughts. kennethphillips@bresnan.net Please no twitter, I don't know how.

Is Something Missing From Your Ethics Training?

NSPE now offers *customized* training presentations, seminars, keynotes and Web seminars for engineering firms, government agencies, and other institutions of all sizes and areas of practice. NSPE General Counsel and engineering ethics expert Arthur Schwartz will work with you to create the optimal program needed to increase your team's engineering ethics awareness — and put all the pieces together.

Visit www.nspe.org/ethics, or contact Arthur Schwart at aschwartz@nspe.org.



Call for Nominations

Montana Professional Engineers Hall of Fame

The Montana Society of Engineers (MSE) requests nominations for induction into the Montana Professional Engineers Hall of Fame. Plaques honoring the inductees will have a permanent home at the Montana State University College of Engineering.

The award was established in 2002 to recognize Montana professional engineers who have made outstanding contributions to the engineering profession and public welfare of Montana. This award is open to all professional engineers licensed in Montana.

Qualifications/Method of Selection

The MSE Executive Board will consider nominees for induction into the Montana Professional Engineers Hall of Fame. Professional engineers licensed in the State of Montana and working on projects in the State of Montana are eligible. Retired and deceased professional engineers are eligible. Current Officers and directors of MSE are *ineligible*.

MSE Executive Board members will consider these aspects of the nominee's career: The candidate's professional integrity is beyond question; the professional reputation is more than local in character; the undertaking of services upon which the award is based are of high order; and there is more than an ordinary relationship between the undertaking of services and the public welfare. Preference is given to candidates who have consistently promoted the social and professional interests of the engineer. This criterion for the award is suggested by the National Society of Professional Engineers.

Nomination Format

Please provide the following biographical information on each nominee:

- Personal information including current address and phone number. If nominee is deceased, so note and provide information of surviving family members.
- 500-word or less statement describing the nominee's education, professional achievements, professional and technical society membership, humanitarian and civic contributions, unusual consulting assignments, and family information.

Presentation

The award(s) will be presented at the Joint Engineers Conference Annual Banquet on Wednesday - November 7, 2012.

Deadline

Nominations must be postmarked no later than May 1, 2012 and sent to this address:

Montana Society of Engineers
Nomination for the MT PE Hall of Fame
PO Box 20996
Billings, MT 59104-0996

Entries postmarked after May 1, 2012 will not be considered.

Montana Energy Management CONFERENCE 2012

The Montana Energy Management Conference 2012—Strategies for Business Savings and Success is just around the corner. Come to Helena, March 27-29 for information, CEUs, and networking opportunities with Montana business owners and the energy community that supports them!

From Main Street and historic preservation to public buildings, healthcare and retail storefronts, this education event is packed with Montana-specific examples of high efficiency technologies and practices that are delivering energy savings, benefits to bottom line, and high performance work environments.

- **CEUs** for electricians, certified building operators, engineers, and architects
- **FREE** pre-conference for registered attendees on Green Motor Practices for **electricians (8 CEUs)**.
- **Celebrate** the 2012 Montana BetterBricks Award Winners.

There are sessions that focus on energy management in Montana facilities, strategies for funding efficiency improvements when capital resources are limited, new technologies for HVAC, operational strategies for the facility manager that don't require big budgets, and much more. Case studies, regional experts, and policy leaders are on the program. The Lighting Design Lab of Seattle is presenting it's Spring Sessions at this event.

Keynote addresses are to be delivered from Bill Thomas at NorthWestern Energy on the Smart Grid demonstration, Montana DEQ Director Richard Opper, the NEEA's new Executive Director Susan Stratton, and Molly McCabe of Hayden Tanner, consultant and international speaker on issues of sustainability, real estate and finance. McCabe lives in the Flathead Valley.

Visit www.montanaenergymanagement.com for the complete agenda and to register. Registration for this quality event is only \$99.

**Montana Energy Management
Conference
March 27-29, 2012
Red Lion Colonial Conference Center
Helena, Montana**

From the MSE Office

If you take nothing else away from this newsletter, please take a moment to read the article on page 4: Montana Legislature Reviews Board on April 20th. They will be reviewing the Professional Engineers and Land Surveyors Licensing Board. Do not assume that the PE&LS Board is immune to cuts or changes.

A survey has been set up on line at www.leg.mt.gov/eaic. Take a moment to complete this survey—ask other professional engineers you know to take a few minutes to take this survey. Legislators want to hear from their constituents — this listen. If you value your licensing board, now is the time to be heard.

Contact any of the current MSE Board members or the MSE Office if you would like more information or are available to testify on April 20, 2012. NOTE: This date could change. Every effort will be made to keep you updated on this issue.

***Compete a quick survey
about your PE Licensing
Board at
www.leg.mt.gov/eaic***

2011-2012 MSE Board

Stephen T. Smith, President

stephentsmith@earthlink.net

Michael J. Cech, President Elect

mike.cech@northwestern.com

Georgia Brensda, Vice President

mtmoosemom@aol.com

Brian Schultz, Secretary/Treasurer

brian.schultz@northwestern.com

Crystal Kuntz, Immediate Past-President

crystal.kuntz@eciblgs.com

Connie Dempster, *Executive Secretary*

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Deadline for the Next
Issue of this Newsletter is
June 10, 2012

Submit articles and advertising to
mse@assoc-mgt.com



DATE SAVER: Registration Opens September 1, 2012

For the 2012 Joint Engineer Conference

November 7-9, 2012

Red Lion Colonial Inn

Helena, Montana

www.mtengineers.org
