



North Dakota



# PROFESSIONAL ENGINEER

March 2005

## NDSPE 64<sup>TH</sup> ANNUAL CONVENTION APRIL 7 - 9, 2005 RADISSON HOTEL - FARGO, ND

### Thursday, 7 April 2005

5:00 PM NDSPE Board of Directors – Prairie Rose Room B  
7:00 PM Social – Meet in the Perspectives Lounge

### Friday, 8 April 2005

7:30 AM Registration opens, continental breakfast – Cityscape B  
8:00 AM Convene Annual Meeting - Cityscape B  
Welcome and Preview of the Day’s Events  
8:15 AM President, Past President’s report  
8:30 AM NDSPE Executive Secretary report  
9:00 AM Educational Session One – “Getting What You Really Want Through Purposeful Communication” – Chris Young (The Rainmaker Group)  
9:45 AM BREAK  
10:00 AM Educational Session One – Continued  
11:00 AM Educational Session Two – “Financing Options for North Dakota Political Subdivisions” – Scott Wegner & Jaclin Wike, (Cook, Wegner & Wike Attorneys at Law)  
12:00 PM Past-Presidents Luncheon – Guest Speaker – Heather Anderson – NSPE Manager State & Chapter Relations  
1:30 PM Educational Session Three – “Generations at Work” – Chris Young (The Rainmaker Group)  
2:30 PM NDSPE Nominations & Elections

### \*RECESS ANNUAL MEETING\*

2:45 PM Audit of NDSPE Records –  
3:30 PM Load Bus for “Air Museum” Tour  
6:00 PM SOCIAL – Cityscape A  
7:00 PM Banquet Meal  
8:00 PM Entertainment – Guest Speaker, Steve Stark  
“Lewis & Clark’s History in ND”  
8:45 PM Banquet Awards Ceremony

### Saturday, 9 April 2005

7:30 AM Education Foundation and Chandler Award Recipients Breakfast – Pear Tree Café (Radisson)  
8:30 AM Practice Section Meetings – Prairie Rose Room  
9:00 AM Reconvene 64<sup>th</sup> Annual Meeting – Prairie Rose Room  
Education Foundation Report  
Manitoba/Saskatchewan Representative Reports  
Committee Reports  
10:45 AM BREAK  
11:00 AM (Continue Committee Reports)  
11:15 AM Membership Chair Reports  
11:45 AM Closing and Adjournment  
12:15 PM NDPSE Board of Directors Lunch Meeting

North Dakota  
**PROFESSIONAL  
ENGINEER**

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**Executive Officers**  
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of Professional Engineers

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Past President

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The North Dakota Professional Engineer is the official publication of the North Dakota Society of Professional Engineers published twice a year at Fargo, ND.

**MATHCOUNTS**  
**Linda Oster**  
**State Coordinator**



We have had excellent participation with North Dakota schools again this year. We had a total of 174 schools registered.

The State Competition was held at the Ramkota Inn in Bismarck on Monday, March 7<sup>th</sup>.

We had a total of 158 participants. Based on the ranking of the individuals scores, the 2005 ND MATHCOUNTS team is Dylan Bernhardt and Tyler Roberts, both from Wachter Middle School, Bismarck; Michael Steve, Hope Christian Academy, Dickinson; Sam Wehri, Ben Franklin Junior High, Fargo. The team coach is Jennifer Fegley, Wachter Middle School, Bismarck. Additional awards were given out to the top ranking teams: Wachter Middle School, Bismarck took first place, Ben Franklin Junior High, Fargo finished second and Hazen Middle School finished third.

Again this year, we sponsored a t-shirt design competition. The winner was Zack Watson from Max Public School. Zack's theme was "Math is out of this world." Zack's prize was a CD player and t-shirt. Zack attended the luncheon at the State Competition to receive his prize.

This year the 2005 National Competition will be held in Detroit and hosted by General Motors Corporation at the GM Headquarters and the Detroit Marriott, May 5-8, 2005.

We would like to take this opportunity to thank all those who supported the program this year with donations and by volunteering. With all the work we do at the state level, our work would come to a standstill if you didn't give of yourselves and support this worthwhile program.

Questions about MathCounts may be forwarded to Linda Oster at 701-355-8437.

# Chapter 1 News - Grand Forks

**R. Nathan Weisenburger, P.E.**

## Chapter 1 President

Chapter 1 membership continues to meet on the third Tuesday of each month with a social starting at 6:30 p.m. followed by the 7:00 p.m. business meeting. Those interested in attending should note that the meeting location has changed from the River Bend restaurant as listed in the previous newsletter to the Eagle's Crest Grill at the King's Walk Golf Course. Members are encouraged to attend and bring others that have interest in NSPE. Members should also be reminded that nominations for 2005/2006 positions of President-Elect, Vice President, Treasurer, and Secretary will be needed at the upcoming April 19<sup>th</sup> meeting. Voting will take place at the annual Chapter 1 picnic on May 17<sup>th</sup>.

At our November 2004 meeting, two UND students involved with the Society for Energy Alternatives provided an interesting presentation on their efforts to develop a Proton Exchange Membrane Fuel Cell vehicle with a goal of being an exhibition entrant in the 2005 North American Solar Challenge in July 2005 from Houston, Texas to Calgary, Canada. In the spirit of competition, NDSPE members asked thought provoking questions and suggested that the race team address the potential for significant delays that may be encountered while attempting to transport hydrogen fuel cells into Canada due to heightened security measures. At the recommendation of Chapter 3, our December 2004 meeting was highlighted by an informative presentation on Financing Options for North Dakota Political Subdivisions from Scott Wegner of Cook Wegner & Wike PLLP. We appreciate the reference, as Mr. Wegner proved to have a thorough understanding of the subject.

In support of providing continuing education opportunities to our membership, Dan Baker, P.E. of Tensar Earth Technologies provided a seminar about geogrid-reinforced subgrades and mechanically stabilized earth (MSE) retaining walls worthy of professional development hour credit at the January 2005 meeting. The February 2005 meeting included a presentation by Dr. Paul Hardersen from the Department of Space Studies at UND regarding his efforts to develop funding for a professional astronomical observatory located west of Grand Forks. Apparently,

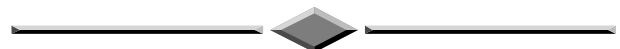
viewing through telescopes is optimized by cold air temperature and dark skies that are not affected by light scatter, making rural North Dakota an ideal fit for such a facility. Anticipated presentation topics at upcoming meetings include the Grand Forks Regional Landfill and Drought Frequency Investigations of the Red River of the North Basin.

As a future continuing education opportunity, Chapter 1 has tentatively scheduled a series of eight brown bag lunch seminars with the North Dakota Ready Mix & Concrete Products Association, which are anticipated to commence in late March or early April and continue at regular intervals into early summer. It is anticipated that the cost of participation will be around \$10.00 for members and \$20.00 for non-members to cover lunch expenses and provide a modest form of revenue in support of other functions.

As a means to attract student members and an opportunity to inform them of the benefits of membership, the Chapter continues to provide refreshments and lunch to students during the Fundamentals of Engineering exam at UND. The Chapter also remains active in local functions such as Mathcounts and Lego Robotics competitions. Most recently, members of Chapter 1 attended the Engineering Week Banquet on February 23, 2005 and presented the following awards:

- Outstanding Senior Engineering Student: John Sartorl (Electrical Engineering)
- Outstanding Junior Engineering Student: Michael King (Electrical Engineering)
- Outstanding Sophomore Engineering Student: Amanda Larson (Mechanical Engineering)
- Outstanding Sophomore Engineering Student: Jeffrey Schuetzle (Mechanical Engineering)

Chapter 1 will also actively support the upcoming American Society of Mechanical Engineering Regional Student Chapter Conference held at UND in April. Tentatively, Chapter 1 will host a presentation espousing the benefits of professional registration at some point during the ASME Conference.



# NDSPE SECRETARY/TREASURER'S REPORT

Kevin G. Nelson, PE/LSI

## The More Things Change ...

The Future Directions Task Force, established by our National Society to recommend a new governance structure for NSPE, gave its report at the NSPE Winter Meeting in San Diego. After reviewing a mountain of reports, studies and documents prepared by task forces of the past, they set out to develop a mission statement, a vision statement and a direction for our National Society. Some of their work was novel; other parts a little less so.

***"It is not necessary to change. Survival is not mandatory."***

W. Edwards Deming

The vision of our National Society is going to focus on Professional Engineers, and those in the "professional track." NSPE started with the purpose of establishing licensure laws in each state. Upon accomplishing that purpose, we strove for making those laws more uniform across the country. Although this goal is not fully realized, it may have reached its apex already. Now, the primary purpose of NSPE is, arguably, protection of the professional license, including fending off attempts at further division by specialty areas of practice. In that effort, we have come to realize that if we try to "be everything to everyone" we end up being nothing of value to anyone. So, we have decided to concentrate on those who will benefit the most from our purpose – PE's and EIT's.

Our mission is to create a society that is "state-centric." Growth occurs at the grassroots. Without our state societies, National will not have a reason to exist. Without our state societies, national would not have any members. Because of these realities, NSPE is taking the necessary steps to direct its efforts at making sure the state societies, and local chapters, are viable and have the resources they need to offer their members. In these efforts, National is re-engineering the governance structure to be more accessible and responsive to state societies and local chapters.

... The More They Stay the Same.

NSPE's first step in this direction was the creation of the State and Chapter Outreach Director position that has been filled with Heather Anderson. This was a novel approach by National to assist states in accessing the resources available at National. A little less novel approach is the proposed governance structure developed by the Future Directions Task Force.

The current NSPE Board of Directors consists of 25 members, of which 23 have voting privileges. This Board consists of the five member Executive Committee, the practice section vice presidents, regional vice presidents, and past president as the voting members; and the ABET Representative and the SSEC (State Society Executive Council) Representative as the two non-voting members. The proposal on the table is to "reduce" the size of the Board to sixteen and to create a "House of Delegates" that will include the new Board and a "Delegate" from each of the 53 State Societies (all 50 states plus DC, Puerto Rico and Guam).

***"Let us not look back in anger or forward in fear but around in awareness."***

James Thurber

It seems to me, and this view is not shared by many of my colleagues on the National Society Board of Directors, that what is being proposed is not a "reduction" of the Board. It is, actually, an expansion of the Board from 25 to 69 and an expansion of the Executive Committee from 5 to 16. Those members who have been around since before the 1990's reorganization might see some similarities with the current proposal and the Board structure before the last reorganization. Although the current proposal is a smaller Board than what existing previous to our current governance, it is still a large Board. Large Boards have, time and again, proven to be untenable and unwieldy. Isn't it interesting that we are considering going backward toward a structure we did not want, while other professional societies are moving toward a structure more similar to what we currently have.

In addition to going back to a larger Board, the Future Directions Task Force is also proposing to give the larger states weighted votes. States like Florida, Texas, California, and New York might have six votes, while states like Delaware, Connecticut, Wyoming, South Dakota, and North Dakota get only one. Our nation's founding fathers set up a governance structure that limited votes to equal voices – one to one. They knew that each voice was important, as was each vote. But that neither was more important than the other, and neither should be doled out in bundles without equitable and equal representation. Yet, the proposal on the NSPE Governance table provides a structure that is neither fair, nor equitable. During debate on any issue, the minority voice has a better chance of convincing one vote or several votes only when each of those votes accompany a single voice. To persuade a voice with multiple votes is more difficult than to persuade some voices that each have one vote.

Our National Society is changing. As members, we need to be an active part of that change. We need to direct it, control it. Without us, NSPE could develop a governance structure that alienates us and marginalizes us. NSPE needs your input, your thoughts, your leadership. NSPE needs you!

### Our Profession in Our State

NDSPE's nominations committee is charged with the task of putting forward names of professionals for various positions with our society and to serve our great profession. The Society positions that are open this year are the Membership director and the Vice President. Er. Scott Zainhofsky, PE, NSPE, has agreed to serve another term as the Membership Director. The nominations committee has been unsuccessful in finding an individual to fill position of Vice President. This position will need to be nominated from the floor of the Annual Meeting in April. If you know of someone who has great leadership skills and is willing to serve our honorable profession through NDSPE, ask them if they will be accept a nomination and bring them to the Annual Meeting in Fargo.

The nominations committee is also required to put forward three names from our membership to fill each vacant engineer spot on the North Dakota State Board of Registration for Professional Engineers and Land Surveyors. This year, Dr. Lawrence Woodbury, PhD, PE, NSPE, completes his second and final term on the Board of Registration. Dr. Woodbury has served our profession very honorably through the Board of Registration and through our Society. The next time you see Dr. Woodbury, thank him for his dedication and commitment to keeping our profession respectable. In its duty of presenting three names for consideration for this open position, the NDSPE nominations committee is submitting the following three individuals for consideration at the April Annual Meeting:

Er. Brian Poykko, PE, NSPE

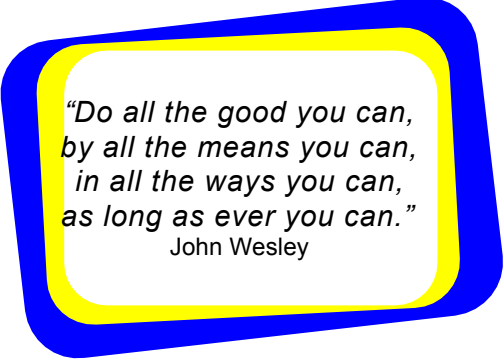
Er. Wayne Reitz, PE, NSPE

Er. Kevin G. Nelson, PE, NSPE

### One of Our Own

Last October NDSPE, ACEC/ND, the community of Jamestown and the state of North Dakota lost a diligent servant. Er. Kenny Loveland, PE, NSPE, served our profession, his city of residency and many organizations with a passion few of us can imagine and even fewer can embody. Er. Loveland was a dedicated, unselfish engineer – a true professional that conducted himself in ways that inspired many, while directing attention away from himself. Er. Loveland will be revered and remembered by many. He will be missed. His absence will be noticed for a long time to come. God bless you, Kenny.

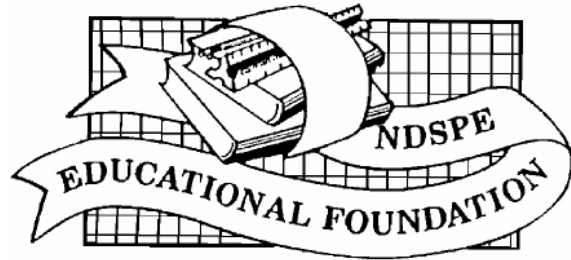
Er. Kevin G. Nelson, PE, NSPE  
NDSPE Secretary/Treasurer &  
NSPE North Central Region Vice President  
Bartlett & West Engineers, Inc.  
3456 East Century Avenue  
Bismarck, ND 58503  
(701) 258-1110  
(701) 258-1111 fax  
Kevin.Nelson@NDSPE.org (e-mail) www.NDSPE.org (web site)



*"Do all the good you can,  
by all the means you can,  
in all the ways you can,  
as long as ever you can."  
John Wesley*

# NDSPE EDUCATIONAL FOUNDATION REPORT

By Kevin G. Nelson, PE/LSI – Foundation Secretary/Treasurer



## Foundation Information

It doesn't seem like it has been 16 years since I graduated from college. Yet I still recall the sacrifices made to pay for my college education. Do you remember the sacrifices you made to pay for college? Remember how financially difficult it was to pay for your college education? Remember how welcome scholarships were/would have been? Now that we are out of college and working at professional careers, we need to give back to the profession and "Fund Our Future." One way of doing that is to donate to the Educational Foundation. The Educational Foundation provides scholarships to our next generation's engineers, the students in engineering curricula at UND and NDSU.

***"Man's mind stretched to a new idea never goes back to its original dimensions."***

Oliver Wendell Holmes

In order to give the scholarships we do, we rely on contributions from individuals and corporations. These scholarship moneys come from the investment returns of the contributions. The Foundation cannot spend any of the money collected in contributions; they are "Restricted Funds." Only the investment earnings, interest and dividend, can be used for operating expenses and for scholarships. In recent years, the Foundation has not seen any operating expenses because supplies, materials and labor have all been donated by individual engineers and engineering companies. To all of you who have graciously given your time, your talent and your contributions, the Foundation extends a sincere "Thank you!"

We have several significant individual contributors, who give generously to the Foundation each year. For the past three years, we have also had four engineering companies (Houston Engineering, Kadrmas Lee & Jackson, Moore Engineering, Ulteig Engineers) as "Corporate Sponsors," contributing substantially and regularly to the Foundation. For more information, check out the levels of giving listed on our website, [www.Foundation.NDSPE.org](http://www.Foundation.NDSPE.org). We hope you consider giving to the Foundation. Any size contribution will help. As a guide, the average size total donation from individuals is \$354.00 with a median of \$100.00. The average size total donation from businesses is \$1,068.00 with a median of \$925.00.

## Summary

The following information is the summary report of financial activity for the calendar year 2004.

CD#	Account Value	Interest Rate	Maturity Date	Term (mos.)	Recent Earnings	Monthly Earnings
XXXX346	\$7,000.00	1.325%	07/26/05	12	\$94.55	\$7.73
XXXX401	\$7,000.00	2.038%	10/28/05	12	\$91.17	\$11.89
XXXX453	\$7,000.00	1.785%	01/27/05	12	\$94.76	\$10.41
XXXX517	\$7,000.00	1.700%	04/27/05	12	\$119.33	\$9.92
XXXX642	\$7,000.00	1.550%	08/02/05	10	\$105.20	\$9.04
	\$35,000.00				\$505.01	\$48.99
<b>Savings Account</b>						
XXXX9208	\$9,551.76	0.900%	YTD Balance		\$45.45	\$7.16
<b>Total Assets</b>	<b>\$44,551.76</b>				<b>\$550.46</b>	<b>\$56.15</b>
Restricted Funds	\$42,869.51	Funds Donated or Contributed to the Foundation				
Unrestricted Funds	\$1,082.25	Funds Available for Distribution				

## Board of Trustees Officers

***“What lies behind us and what lies before us are tiny matters compared to what lies within us.”***

Ralph Waldo Emerson

The North Dakota Society of Professional Engineers Educational Foundation is operated exclusively for the educational benefit of North Dakota engineering students who are residents of North Dakota. It is run by a board of trustees, comprised of officers and members of NDSPE. The officers of the NDSPE Educational Foundation Board of Trustees, are:

- ✓ President – Er. Dean Wieland, PE, NSPE
- ✓ Vice President – Er. Roger Kluck, PE, NSPE
- ✓ Secretary/Treasurer – Er. Kevin G. Nelson, PE, NSPE

Other trustees are Dr. Otto Helweg, PhD, PE, NSPE – Dean of Engineering at NDSU, and Dr. John Watson, PhD, PE – Dean of Engineering at UND

Please help us “Fund Our Future” by making a difference in the lives of our engineering students, helping them finance their educations. In order for the Foundation to give larger scholarships, we need to receive your contributions. Give to the Educational Foundation. Contributions can be sent to the address below:

Er. Kevin G. Nelson, PE, NSPE  
 NDSPE Educational Foundation Secretary/Treasurer  
 3831 Kingston Drive  
 Bismarck, ND 58503-8286  
 (701) 258-2818  
 (701) 258-1111 fax  
[Secretary@NDSPE.org](mailto:Secretary@NDSPE.org) (e-mail)  
[www.Foundation.NDSPE.org](http://www.Foundation.NDSPE.org) (web site)

# News from the State Board of Registration

Clifford E. Keller, Executive Secretary

## Is Your Registration Current?

To a practicing professional engineer, a current registration is the basis for professional practice. Are you one of the twenty-five or so professional engineers residing in North Dakota who have not renewed their professional engineer registration. If you are part of this group, you may be practicing illegally. If you are not sure whether you have paid your 2005 – 2006 renewal fee, please check with the State Board office. The State Board office has sent several lapsed registration letters so if you have not received any of these communications, we probably do not have your current address on record. There are also have a number of engineering companies that have not renewed their certificates of authorization.

## Continuing Education Subjects

When you received your renewal, it was accompanied by some continuing education forms and information. One of the forms was a sample reporting log for continuing education activities. The form contained a certificate” vs. “no certificate” reference. A new continuing education log has been developed and it is unchanged from the original log except that the certificate notation is replaced with a “technical” vs. “non technical” reference. The reason for the change is that certificates would only be sent to the State Board office in the event an individual is selected to be audited, but all registrants need to keep track of the “technical” vs. “non technical” nature of the continuing education credits they earn. A new continuing education log will be available on the web page in the very near future. In the interim registrants can continue to use the existing form to keep track of continuing education credits. Registrants may also use a continuing education log of their own design as long as it contains all of the information requested in the sample form offered by the State Board. Other information about the continuing education program is available at the State Board’s webpage [www.ndpelsboard.org](http://www.ndpelsboard.org). Any further questions

should be addressed to the State Board office at 701-258-0786.

## Title 28, NDAC and Roster Updates

As this article is being prepared, CD’s are being copied that will contain the new Title 28, North Dakota Administrative Code (NDAC), the changes to Chapter 43-19.1, of the North Dakota Century Code and the 2005 – 2006 Roster of Registrants. Each individual registrant and certificate of authorization registrant will be receiving a copy of the CD. You can expect to receive your CD sometime during the latter part of March. This information will also continue to be available at the Board’s webpage.

## Importance of New Code of Ethics Emphasized

One of the largest changes and arguably the most important to Title 28, (NDAC) was the newly revised Code of Ethics. To emphasize the importance of the changes to the Code of Ethics, a printed copy of the Code of Ethics will be included with the CD which also contains the revised Code of Ethics. The new Code of Ethics does many things; it acknowledges new trends in engineering practice, it describes the basis for your performance as a professional engineer and it also explains the basis for disciplinary actions. As with the old Code of Ethics, the new Code of Ethics continues to place responsibility on all registrants to assist in the policing of the engineering and surveying professions in North Dakota.

## New Engineers Registered

In 2004 a total of one hundred, ninety-four professional engineers were registered. Of this number, 164 individuals were registered by endorsement from other jurisdictions with the remaining thirty individuals being new engineers who passed the Principles & Practice of Engineering (PE) examination in April and October, 2004. The

new professional engineers who passed the PE examination in April included:

- Mark Bares (Oakes, ND)
- Jane Berger (Bismarck, ND)
- Anthony Corcoran (Fargo, ND)
- Lonni Fleck (Williston, ND)
- L. David Glatt (Bismarck, ND)
- Sharee Haar (East Grand Forks, MN)
- Conrad Hapka (Grand Forks, ND)
- Chad Heinrich (Aberdeen, SD)
- Michael Kisse (Bismarck, ND)
- Jeffrey Lansick (Moorhead, MN)
- Kyle Meyer (Fargo, ND)
- Kate Miner (Fargo, ND)
- Brad Pfeifer (Bismarck, ND)
- Julianna Prescott (Mandan, ND)
- John Schneider (Bismarck, ND)
- Gene Storbeck (Fargo, ND)

The pass rate for the April examination cycle was 45% as thirty three individuals took the examination with fifteen receiving a passing grade of 70 or more. Those passing the PE examination in October, 2004 included:

- Dean Anderson (Mandan, ND)
- Eric Dodds (West Fargo, ND)
- John R. Dvorak (Parshall, ND)
- Chowdrury Haider (Bismarck, ND )
- Eric Hjelle (West Fargo, ND)
- Craig F. Kubas (Gladstone, ND)
- Jeremy Larson (Bismarck, ND)
- Daniel Lech (Felton, MN)
- Colin Moran (West Fargo, ND)
- Robert Nelson (Grand Forks, ND)
- Jason Petryszyn (Bismarck, ND)
- Aric Rude (West Fargo, ND)
- Scott Schneider (Bismarck, ND)
- Scott White (Dickinson, ND)

The pass rate for the October PE examinations was 54%. The State Board extends its congratulations to all of the new engineers especially those who passed the PE examination in 2004. Take a moment and welcome your new colleagues into the profession. If they have questions, give them the benefit of your

knowledge and experience as they represent the future of your profession. In addition to the engineers who were registered, six land surveyors were registered during 2004. The pass rate for the one hundred, seventy-eight individuals who took the Fundamentals of Engineering (FE) examination on April 17, 2004 was just under 76% which is about four to five percentage points lower than the pass-fail rate for previous FE exam administrations but still above the national average for the FE examination. The pass rate for the one hundred, fifty-five individuals who took the FE examination on October 30, 2004 was over 81% which was higher than the April, 2004 examination pass rate but slightly lower than the normal pass rate for North Dakota FE examinees but again still higher than the national average.

#### State Board Office Has Moved

The State Board Office has moved to another location in the same office building. The new address is 723 West Memorial Highway. We are now located in the west end of the building. If you are in Bismarck, stop in and say hello.

#### Future State Board Meeting Schedule

April 20, 2005 (8:30 a.m.) Conference Room, State Board Office, 723 West Memorial Highway, Bismarck

June 15, 2005 (8:30 a.m.), Fargo (Meeting Site to be Announced – Check the webpage or call the State Board office)

A listing of the meeting schedule after June, 2005 will be published after the Board reorganization meeting in July later this year.

All meetings of the State Board of Registration are public meetings and the public is invited to attend. Additional information about the meetings can be obtained by contacting the State Board at 701-258-0786. Telephone conference meetings may be attended at the State Board Office or at the locations of the individual State Board members. Call the State Board office for information on

alternate locations for telephone meetings. A complete listing of future meeting dates as they are scheduled is available at the State Board's web page [www.ndpelsboard.org](http://www.ndpelsboard.org).

## Change in Examination Administration Announced

Much of this article appeared in the October, 2004 issue of the NDSPE Newsletter however due to the number of questions about the change in examination administration procedures, some of the information will be repeated because you as mentors and employers of the engineers who will be taking the various examinations in the future, need to understand the process. Effective with the April, 2005 examinations (4/15/05 & 4/16/05), ELSESES will administer all examinations which were formerly administered by the State Board of Registration. ELSESES is a limited liability company that is closely affiliated with the National Council for Examiners for Engineering and Surveying (NCEES). ELSESES already administers the NCEES engineering and surveying examinations in nearly thirty-five states. The Board is making this change due to concerns about examination security and liability issues. Security breaches and lost examinations have resulted in multi-hundred thousand dollar suits against state boards where an examination was lost or a serious security breach was committed. Under the new procedures, applicants will continue to submit their examination applications to the State Board for review and approval. As examination applications are approved by the State Board of Registration, the approved applicants' names are submitted to ELSESES as part of an approved applicant list. This list will also include the names of the individuals who have been approved by the deans of the engineering departments at UND and NDSU to take the FE examination. The actual registration process for the various examinations is completed by the examinees at the ELSESES webpage. Once an individual is approved to take a particular examination, that person will remain on the eligible list to take that examination until a passing grade is reached, withstanding any other circumstances. The examinations will, for the most part, be administered by the same persons who have been administering

the examinations in the past and probably will be given in the same examination rooms. The State Board staff will not be involved with the administration of the examinations as that participation could place the State Board back in the liability chain. While the State Board will not have any participation in the actual examination administration, the examination grades will continue to be reported to the State Board who will then inform the examinees accordingly and register those who passed the various examinations. This new procedure insures that the State Board will no longer be responsible for damages due to lost materials or security breaches. The new procedure did result in an increase in examination fees. A \$30.00 examination fee was added to the present examination fee structure for all examinations which will be paid to ELSESES for each NCEES examination administered. This fee will bring the FE examination fee to \$90.00 and the PE examination fee will increase from \$140.00 to \$170.00. The examination fees are paid directly to ELSESES by the examinees. These examination fees are subject to change on an annual basis. It was reassuring to realize that some of the security measures implemented by ELSESES were actually pioneered by the State Board when it administered the examinations. If you are interested in reviewing the process you can travel to ELSESES' webpage which is located at <http://www.els-examreg.org/>. At the home page, you will find North Dakota within a listing of states on the upper left hand of the home page. Click on North Dakota and the program will move you to the home page for North Dakota's part of the ELSESES webpage.

## Have You Moved Lately?

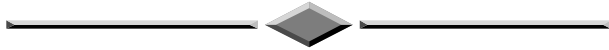
If you have moved lately and have not informed the State Board office of your new address or location, you may be missing important information that is being sent to you from the State Board office. You contact the drivers license bureau when you move – don't forget to contact the State Board office when you move!

## **Chapter 2 News - Minot**

**Roger Kluck, P.E.**

### **Chapter 2 President for Life**

NDSPE Chapter 2, aka The Proud, The Few, continue to function as an NDSPE chapter even though their meeting schedule is less than vigorous. Anyone wishing to become active in NDSPE in the Minot area should contact Roger Kluck for a well-rehearsed pep talk.



## **Chapter 3 News - Bismarck**

**Dale C. Heglund, P.E.**

### **Chapter 3 President**

#### **2004 Officers**

Past President: Chris Wentz, P.E. – Heyer & Loos Engineering, 221-3286 (heyereng@msn.com)

President: Dale Heglund, P.E.- Cretex West Concrete Products, 220-5192 (dheglund@cretexwest.com)

President Elect: Tom Neigum, P.E. - Kadrmas Lee & Jackson, 355-8415 (tom.neigum@kljeng.com)

Vice President: John Spilman, CSP, CHMM – Keitu Engineers, 667-1800 (jspilman@keitu.com)

Secretary: Cory Chorne, P.E. – Advanced Engineering, 221-0530 (cory.chorne@ae2s.com)

Treasurer: Darin Schaeffer, P.E. – Bartlett & West, 258-1110 (darin.schaeffer@bartwest.com)

Jack Bacon, PE, NASA Engineer – Public Presentations

In January, NSDPE, Ch 3 sponsored/partnered with IEEE, BSC and Gateway to Science to provide the public with free presentations by Dr Jack Bacon, PE. Jack is a NASA engineer, noted futurist and

technological historian who has been coined the “new Carl Sagan”. He works for NASA as a lead systems integrator of the International Space Station, is an author and an internationally-known speaker. Jack has the unique ability of translating technical topics into interesting, easy to comprehend, and captivating presentations. During the 5 days that Jack visited our area he was able to speak to over 3000 people; from kids in Jamestown, Dickinson and Richardton to the general public at BSC to the professionals involved in North Dakota’s energy. NDSPE and the partner groups listed above are focusing on the development of a “Traveling Scholars” program, hosting speakers like Jack that well represent the professional engineering field and provide the public with quality, no-cost technical presentations. Our funding of this program is sure to inspire the technical advancement of our area, reaping rewards long into the future.

Jack Bacon info is available online at [www.gscience.org](http://www.gscience.org) and [www.grimbaldus.com](http://www.grimbaldus.com).

E-Week, February 20-26, 2005, Events

Tom Neigum, EWeek Committee Chairman, along with John Spilman, Cory Chorne, Darin Schaeffer and Roger Berg put together a powerful E-Week celebration. The 2<sup>nd</sup> Annual Rube Goldberg Contest, in partnership with the Gateway to Science, was held February 9<sup>th</sup>. This contest continues to provide a great avenue for the introduction of ingenuity and teamwork that are integral to project development; giving students a glimpse of engineering and the power of synergistic solutions. We were pleased to have the winning Rube Goldberg team attend the EWeek banquet on Saturday, February 26<sup>th</sup>. The 126 people that attended the EWeek banquet enjoyed Jon Jennings’, banquet toastmaster, jokes and Dean Meyer’s humorous presentation – cowboy politics stuff. Cliff Keller, State Board of Registration Executive Director, led the newly registered engineers in the Engineer’s Creed, recognized their accomplishments of past and painted the path for their future. Jerold Backes, PE was recognized as the Chapter 3 nomination to the State Board of NDSPE for consideration for the 2005 Elwyn F. Chandler

Award. BSC engineering students Ted Wald, Paul Bushnell, and Ashley Bender were given scholarships on behalf of the Chapter 3 supporting companies.

## **Chapter 4 News - Fargo**

**Tracy Eslinger, P.E.**  
**Chapter 4 Secretary**

### List of NDSPE Chapter 3 Meetings and Events for Spring 2005

#### March Meeting Notice

Date: Thursday – March 17, 2005  
Time: 7:00 p.m. – 8:00p.m.  
Place: Bismarck State College, Student Union Building, Alumni Room  
Program: Professional Issues  
Presenters: Kevin Nelson, P.E. of Bartlett and West Engineers

#### April Meeting Notice

Date: Thursday – April 21, 2005  
Time: 7:00 p.m. – 8:00p.m.  
Place: Bismarck State College, Student Union Building, Alumni Room  
Program: Red River Valley Water Study  
Presenters: Dave Johnson, P.E. of the Garrison Diversion Conservancy District

#### May Event/Meeting Notice

Date: Thursday – May 19, 2005  
Time: 5:00 p.m. – 9:00p.m.  
Place: Sertoma Park, Riverside Park Road and W. Arbor Ave., Bismarck, Shelter 8  
(Shelter just east of the “Big Slide Amusement Park”)  
Event: NDSPE Chapter 3 Annual Picnic  
Invitation to: All members and their families

Please accept an open invitation to attend and participate in any of the Chapter 3 activities.

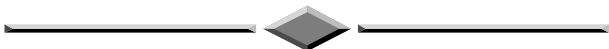
NDSPE Chapter 4 started off it’s year in September with a meeting attended by 35 members. The guest speaker for the evening was Jay Haley with EPAC of Grand Forks who spoke about wind energy in North Dakota and the resent project near Edgeley and Kulm, North Dakota.

As October approached, we were able to update the Chapter 4 link on the state website, <http://ndspe.org/chapters/ch4> to include new officers, meeting calendar and membership forms. Before daylight savings arrived, we were presented information at our October meeting about NDSU solar race car team, Sunsetter. They discussed the previous cars built, current budget (\$200,000) and upcoming qualifying race in Kansas during the spring of 2005 and the national race from Houston, Texas, USA to Calgary, Alberta, Canada, with a stop in Fargo during the summer of 2005. Progress on their solar car can be view on their website [www.sunsetter.org](http://www.sunsetter.org).

Cindy Gray from the Fargo Planning Department presented information to the chapter at the November meeting on the city’s planning efforts. Membership has risen to 77 members, at this point. Members of the chapter were busy planning E-week events and the NDSPE state convention that will be held in Fargo on April 7th, 8th and 9th.

Since no December meeting was planned, our January meeting allowed 20 plus members to attend a tour of the Cardinal Insulated Glass facility in Fargo. They supply sealed glass units to Marvin Windows and more than half to their 360 employees are new American employees.

For February, the chapter was busy with the celebration for E-week and the events for the toothpick bridge construction, math counts and its annual banquet. The toothpick bridge event saw more than 100 bridge designs with over 13 different schools participating in the event. Five Chapter

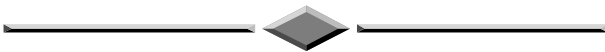


members were on hand to provide the loading of the bridges, scoring and judging for the event.

The Mathcounts event attracted 7 schools with 52 students in grades 7th and 8th. Eight Chapter members were on hand to provide judging and assistance for the event. After the event the students were able to tour Global Electric Motorcars the leading producer and seller of low speed electric neighborhood vehicles.

The annual banquet was attended by 63 individuals. Awards were presented for Young Engineer of the Year Award, Jeremy McLaughlin from Houston Engineering and Outstanding Design Award for the Horizon Middle School structural design by Heyer Engineering.

Our March meeting promises to be very interesting with our guest speaker coming from Alaska via the South Pole! Kurt Skoog performs surveying in both Alaska and the South Pole. He spends a few months each summer at the South Pole performing construction surveying for the new station that is being built, monitoring the settlement of the buildings, performing as-built surveys of any new structure cables that are installed, and any surveying required for the science projects. Kurt has spent ten years working on the monitoring and maintenance of the Alaskan Pipeline and twelve years working with seismic oil exploration on the north slope of Alaska. projects. Kurt has spent ten years working on the monitoring and maintenance of the Alaskan Pipeline.



## **MSUM Toothpick Bridge Contest** **Ron Williams, P.E.**

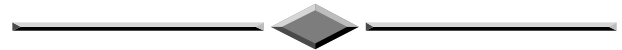
### **2005 Toothpick Bridge Competition a Big Hit!**

After several years of marginal attendance, the 2005 Toothpick Bridge Competition held at Minnesota State University - Moorhead came back with a roar! We had more than 100 bridges built by 154 students. With only five members of F-M Engineers Club helping, we were initially overwhelmed with students wanting to register and load, so we were pleased to have several teachers volunteer to assist.

We saw students from 13 schools, with the largest groups coming from Fosston, Horizon Middle School in Moorhead, S.G. Reinertson Elementary and Ellen Hopkins Elementary in Moorhead. As in the past, Fosston dominated the competition, taking home 1st, 2nd and 3rd overall, and the next high prizes for high school and middle school.

I felt bad that although 99 5th and 6th graders competed, I had only two prizes to award, so I asked several local engineering firms if they could contribute prizes to award as "honorable mention" for elementary students. My thanks to Advanced Engineering, Houston Engineering, Moore Engineering and Utleig Engineers for generously donating caps, t-shirts, water bottles, pens, etc., which I will be presenting to the students next week.

The overall results are posted on the competition website - [www.mnstate.edu/bridge](http://www.mnstate.edu/bridge). The overall winner, Tony Hand from Fosston, built a bridge that held 330 lbs, for a load to weight ratio of 1869:1! Well done, Tony!



## FROM THE DESK OF THE PRESIDENT

Gary L. Doerr, P.E.

NDSPE is a volunteer organization. We operate with one part-time paid staff member, Executive Secretary Mary Nelson. All of the other duties are fulfilled with volunteer member time. Thank you for your help. Without you we would not exist. Some of the other states Societies are struggling to maintain their status quo which involves office buildings and paid staff. NSPE was originally created to create licensure laws in all 50 states. That has been achieved plus DC, Puerto Rico and Guam, and now we are trying to determine what “our cause” is for the 2000’s.

NSPE is in a current transformation in an attempt to become more in line with what its members want out of this professional organization. The governing structure will be changing. Nearly every state is beginning to face a membership crisis. Only a couple of states grew in membership in 2004. A Future Direction Task Force is looking into many potential directions that NSPE will head in the future.

It seems that the regional system of governance is on its way out. While communicating with the states in our region, I’ve discovered that some of the states in our region are beginning to face the fact that they can not continue to operate as they have in the past and must change directions in order to remain viable.

As the President of the North Dakota Society of Professional Engineers I have been able to communicate regularly with other state Presidents. Being able to talk with leaders of other states has given me a better outlook for our Society. NDSPE seems to be on the right track but we can all make the Society a better and bigger organization by inviting someone to come to a meeting and join the Society. Just ask. Our meetings are always open to anyone to attend. Help us get the word out so more people can join us at our meetings. Members can use our web site to stay informed. The chapters

have updates on their meeting agendas and upcoming events. [www.NDSPE.org](http://www.NDSPE.org)

Our NDSPE membership grade of Professional Engineers has remained steady over the past several years. We have had a large decline in the student membership since the retirement of Monte Phillips at the University of North Dakota. We are working at revitalizing the student membership as they are our future. We also have begun the 80-20 program this fall. Scott Zainhofsky or Kevin Nelson can discuss membership questions with anyone who needs an update.

The continuing education rules become effective during the 2005-2007 registration cycle with submittal of the documentation due with the 2007-2009 renewals. The rules are similar rules in states that surrounding ND. This is an excellent opportunity for Chapters and the State Society to provide some of the continuing education programs and provide another reason for others to become a member of NSPE and NDSPE.

At our recent Board of Director’s meeting, we voted to submit six names to NSPE for Life Membership category. If approved, they meet all requirements as far as we can tell, they will be notified and letters of congratulations will be in order. These members are long time members which make up the backbone of an organization like this. Congratulations to the following:

Walter Abbott  
Richard Anderson  
Jerome Borgen  
Kent Horton  
Harley Swenson  
Lloyd Thompson

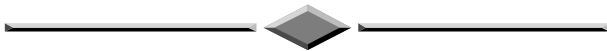


# **NDSPE President-elect Report**

**Bruce Dockter, P.E.**

This winter I attended my first NSPE winter meeting in sunny San Diego. The only down side to the trip was watching the Vikings loose in the playoffs. Perhaps it was actually a blessing. It was a great experience meeting other officers from around the country. There were many proposed changes by the society and it was a good experience being apart of it.

I still feel the two most important issues, as I near my tenure as President, will be membership and Professional Development Units. I look forward to working with all of you on both of these and other issues. I hope to see most of you in Fargo at the annual meeting.



(Oops, ran out of news. See you at the NDSPE 64<sup>th</sup> Annual Convention in Fargo on April 7-9, 2005. Ed.)

North Dakota Society of Professional  
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c/o Department of Civil Engineering and  
Construction  
North Dakota State University  
Fargo, ND 58105

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### Nominations to Offices in NDSPE

Donald A. Andersen, P.E., Nominations Committee Chair

President	Bruce Dockter	Chapter 1
President Elect	Gregg Thielman	Chapter 4
Vice President	(Nominations will accepted at the annual meeting)	
Secretary/Treasurer	Kevin Nelson	Chapter 3
Scott Zhainhofsky	Membership Director	Chapter 3
Board of Registration	Kevin Nelson	Chapter 3
	Brian Poykko	Chapter 1
	Wayne Reitz	Chapter 4