
Flooding of the Susquehanna and Delaware River Basins

June 2006

*Carl DuPoldt, PE,
President PSPE Delaware County Chapter*

With the increased amount of rain in the latter part of June, 2006, both the Susquehanna and the Delaware River Basins have seen significant flooding. Is global warming responsible? Should more be done to prevent development on flood plains? Should existing communities in the flood plains be given more funding? Whatever the answer, engineers need to take a more proactive role in the protection of public health, safety and public welfare. When disasters hit, the public becomes more aware of the value of the engineering profession.

Federal Disaster Relief Sought

Governor Rendell has requested federal disaster assistance for the following counties: Adams, Armstrong, Berks, Bradford, Bucks, Carbon, Chester, Columbia, Cumberland, Dauphin, Delaware, Franklin, Indiana, Jefferson, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Lycoming, Monroe, Montgomery, Montour, Northampton, Northumberland, Philadelphia, Pike, Schuylkill, Sullivan, Susquehanna, Tioga, Wayne, Wyoming and York counties.

Global Warming

Is global warming to blame? Here's some statements from AccuWeather and other spokes people.

"The climate is warming," said Bernie Rayno, senior meteorologist at Accuweather.com. "The real question is: 'Are humans causing it or is it occurring because of natural cycles?' We believe that we are in a

natural cycle like we were back in the 1930s, 40s and 50s. And that was a time of big climate swings."

Brenda Ekwurzel of the Union of Concerned Scientists sees a gradual shift over the past 50 years toward heavier rain and more violent weather, including the record-shattering hurricane season that produced 28 storms last year.

The Insurance Information Institute, a nonprofit trade group, said the Northeast looked "woefully unprepared" to the risk of floods. "We're entering a period of time when we should expect more severe and frequent hurricanes and at the same time we've got this trend toward more and more people moving into coastal areas," said spokeswoman Jeanne Salvatore

The Susquehanna River Basin from the SRBC Standpoint

The Susquehanna basin is one of the nation's most flood-prone areas. Additionally, the main stem Susquehanna River is more prone to ice jams and subsequent flooding than any other river east of the Rocky Mountains.

The basin's topography and geology and nearly 30,000 miles of streams are some of the contributing factors. The following are two distinct ways that the basin's topography and geology can cause flooding.

The first situation occurs when a section of river is very wide, but then is suddenly squeezed into a steep, narrow gorge. During heavy rainfall events or when the winter ice

begins to break up, the increased flow of water or ice backs up in the narrow gorge, causing the river to overflow its banks. Also, when the ice jam breaks, a sudden surge of water can cause downstream flooding.

The second situation occurs when a river flows through an area with very little slope, and shallow banks. In this topography, this is fairly common in the basin, the river levels out and flows slowly. During heavy rainfall events, the river quickly swells and overflows its banks. When winter ice breaks up, the slow-moving flow causes the ice to jam easily, creating obstacles and backing up the water.

The Delaware River Basin from DRBC's Standpoint

Extremely heavy rainfall over the Delaware River Basin during the June 24-28 period has resulted in flash flooding and is causing record to near-record flood crests along many streams and rivers in the basin, including the main stem Delaware River.

National Weather Service data indicate that six inches to as much as 15 inches of rain fell in the Schuylkill, Lehigh, and upper Delaware River watersheds during the period. At least five inches fell throughout nearly all of the Delaware River Basin, with the exception of portions of New Jersey and the immediate Philadelphia area.

Although hydrologic conditions were normal to dry prior to Saturday, June 24, the broad area of the rainfall and its intensity in the western half of the basin produced the

flooding. During the evening of Tuesday, June 27, National Weather Service flash flood warnings were in effect for nearly all counties in the Pennsylvania and New York portions of the basin.

Heavy rainfall during June 24-26 saturated the ground and produced bank full and minor flooding conditions by early June 27. This set the stage for high runoff potential for any additional precipitation that fell. Then, precipitation on June 27 and early on Wednesday, June 28 produced an additional two to over six inches of rainfall in the Schuylkill, Lehigh, and Lackawaxen watersheds as well as in Sullivan and Delaware counties in New York State. The high rate of runoff combined with the already bank full conditions has produced the near-record flooding conditions.

Wilkes-Barre Situation

Up to 200,000 people in the Wilkes-Barre area were ordered to evacuate their homes Wednesday because of rising water on the Susquehanna River, swelled by a record-breaking deluge that has killed at least 12 people across the Northeast.

Thousands more were ordered to leave their homes in New Jersey, New York and Maryland. Rescue helicopters plucked residents from rooftops as rivers and streams surged over their banks, washed out roads and bridges, and cut off villages in some of the worst flooding in the region in decades, with more rain in the forecast for the rest of the week.



Stevenson bridge

Wilkes-Barre, a city of 43,000 in northeastern Pennsylvania coal-mining country, was devastated by deadly flooding in 1972 from the remnants of Hurricane Agnes. It is protected by levees, and officials said the Susquehanna was expected to crest just a few feet from the tops of the 41-foot floodwalls.

Bucks County, PA Situation

The Bucks County Commissioners declared a state of emergency June 28, predicting that flooding on the Neshaminy Creek was expected to crest at 12.5 feet by noon. By 6:30 a.m. the Community Alert Network (CAN) had alerted 478 homes along the main branch of the Neshaminy Creek of imminent danger.

“This could be as bad as 1955 or worse, like the flood of 1904,” said Upper Makefield Supervisor Dan Worden.

Voluntary evacuations of the River Road region in Upper Makefield Township and adjacent New Hope to the north, and Lower Makefield and Yardley to the south began during the afternoon and evening of Tuesday, June 27.

By the early morning hours of June 28, the evacuations were made mandatory for any area which experienced flooding during the September 2004 and April 2005 floods.

Yardley Borough, Nockamixon Township, New Hope Borough and Upper Makefield have all declared states of emergency, too.

Four bridges across the Delaware River were closed as of noon on Wednesday, June

28. Starting at Washington Crossing and heading north, the bridges, including the New Hope-Lambertville and Stockton spans were in danger of being flooded.

The Delaware River was measured at Riegelsville at 22.79 feet at 6 a.m. June 28. Flood stage is 22 feet. It is expected to be at 36 feet by 2 a.m. Thursday morning, June 29.

The Delaware River was measured at 18.5 feet at 6 a.m. June 28 at Yardley. Projections for 2 p.m. Thursday, June 29 place the river level at 28 feet in Yardley.

Conclusion

Currently, there is a new final draft of the Pennsylvania Stormwater Best Management Practices Manual. Engineers need to embrace this manual and promote it throughout the state. We need to minimize land disturbance and promote more pervious areas for infiltration of stormwater runoff. Engineers need to save wetlands wherever possible. Wetlands are nature’s sponges. Forest cover has been shown to absorb stormwater runoff. For more information, check out the following web site of the Pennsylvania Department of Environmental Protection. <http://www.dep.state.pa.us/dep/deputate/watermgt/wc/subjects/stormwatermanagement/default.htm>

We all need to be aware of flood plains and stormwater management and protection to help minimize the impacts of storm events on the public’s health, safety and welfare. For more information, check out the web site of the Pennsylvania Emergency Management Agency. <http://www.pema.state.pa.us>. ■





NSPE Annual Meeting Highlights

Boston, Massachusetts

Pennsylvania was well represented at the National convention held July 9-11, 2006 in Boston, Massachusetts. Pennsylvania attendees included:

Fred Akl, Chester
Gunther O. Carrle, Esq., King of Prussia
Lisa Catania, Milmont Park
Jon Drosendahl, Glenshaw
Paul Dugan, Phoenixville
Dale Englehart, Wilkes-Barre
Harry Garman, Allentown
Joseph Graci, Bala Cynwyd
Harvey Hnatiuk, Fort Washington
Barry Isett, Trexlertown
Donald J. Koestler, Philadelphia
Sidney Myers, Camp Hill
Marilyn Nyman, Ft. Washington
Mark Sacchetti, Pipersville
Jennifer Summers, Harrisburg

Following is a brief summary of activity from the convention:

- The inaugural NSPE House of Delegates meeting convened on July 11, 2006 in Boston, Massachusetts. Under the new governance structure, NSPE state and territorial societies, the NSPE Board of Directors and NSPE interest groups have representation within the NSPE House of Delegates. The NSPE House of Delegates has the authority to adopt NSPE's vision, mission and goals, establish NSPE's Strategic Plan, Code of Ethics, Professional Policies, elect the NSPE

Officers and the NSPE Board of Directors, and amend the NSPE Bylaws. **Harve D. Hnatiuk, P.E., F.NSPE**, was installed as Pennsylvania's representative to the NSPE House of Delegates.

- PSPE Deputy Executive Director, **Jennifer Summers**, attended meetings of the State Society Executives Council. Challenges with the data transfer from VTASS to the new AMS and lack of timely invoicing of members were topics of great discussion. NSPE staff reported that they are fully aware of processes that need to be refined for all members to be invoiced correctly and in a timely manner. NSPE staff reported on the most recent conference call that invoices for members with expiration dates of September 30, 2006 have been mailed. PSPE staff will continue to monitor the situation with the national database and work closely with NSPE to assist in making this system a valuable tool. State executives stressed to the NSPE Board of Directors the critical importance of devoting staff and resources exclusively to making sure the AMS is operating efficiently. State executives also stressed to the board the need to refocus NSPE resources on the Strategic Plan and work done by the Implementation Task Force in 2005. If NSPE cannot strategically define and position itself as valuable to Professional Engineers, it will not matter if we have the perfect database.
- The NSPE Board of Directors agreed to an implementation schedule presented by NSPE staff at the NSPE Board of Directors meeting. Regular dues invoicing including a more efficient and redesigned NSPE invoice, improved data cleansing and netForum upgrades are scheduled to be completed by September 1, 2006. Barry Isett, P.E., F.NSPE (PA) serves as Director from the Northeast Region.



Pictured l-r Robert Miller III, P.E., F.NSPE, Bernard Berson, P.E., LS, PP, F.NSPE, Kathryn Gray, P.E., F.NSPE and Russell Devick, P.E., F.NSPE

- State societies and NSPE agreed to send letters to state engineering licensure boards encouraging NSPE members on those boards to support the additional education for professional practice initiative that will be discussed and debated at the upcoming NCEES Meeting on September 13-16 in Anchorage, Alaska. NOTE: PSPE leaders have declined to send a letter to members of the PA State Registration Board at this time.
- NSPE installed officers to serve the 2006-2007 term:
 Robert S. Miller III, P.E., F.NSPE (VA), *President*
 Bernard R. Berson, P.E., LS, PP, F.NSPE (NJ), *President-Elect*
 Kathryn A. Gray, P.E., F.NSPE (IL), *Immediate Past President*
 Russell C. Devick, P.E., F.NSPE (FL), *Treasurer*
 Albert C. Gray, Ph.D., P.E., CAE, F.NSPE (VA), *Executive Director and Secretary*
- The NSPE House of Delegates elected Ken Rigsbee, P.E., F.NSPE as NSPE President 2008-2009. The House also elected Ed Racila, P.E., F.NSPE to the office of NSPE Director at Large as well as a NSPE Board of Directors slate. A complete list of the NSPE 2006-2007 Board of Directors may be found at: <http://www.nspe.org/aboutnspe/ab1-off.asp>
- NSPE's leaders met with representative of the National Academy of Building Inspection Engineers (NABIE) and discussed various issues including joint efforts to improve professional standards of practice, ethics, licensure, continuing education, specialty certification and the image of professional engineers.
- NSPE leaders met with Claudio Dall'Acqua, (Eng.), President of the Pan American Association of Engineering Societies (UPADI), and representatives from ASCE and ASME to discuss plans for the 2006 UPADI Conference scheduled for September 19-22, 2006 in Atlanta, Georgia. NSPE, ASCE and ASME are working with Georgia Technological University in hosting and promoting the conference.

- NSPE Licensure and Qualifications for Practice Committee urged the NSPE President to make greater uniformity of state mandatory continuing education requirements a major initiative during his 2006-2007 administrative year.
- NSPE approved a comprehensive report analyzing various engineering-related educational programs to encourage pre-college students to consider careers in engineering.
- NSPE approved signing a "Combating Corruption in Engineering and Construction Charter", an industry document to address international corruption within the design and construction industry.
- NSPE approved a plan to increase state society participation in the NSPE Fellows Program nominations process.
- NSPE asked the NSPE Board of Ethical Review to review the NSPE Code of Ethics and consider categorizing the provisions of the Code into "mandatory practices" and "recommended practices."
- The NSPE Board of Directors and NSPE House of Delegates received updated reports from the NSPE Implementation Task Force and the NSPE Metrics Oversight Task Force on NSPE's progress toward tracking, achieving and measuring the goals and objectives outlined in the 2005 NSPE Future Directions Task Force Report. ■



Harve Hnatiuk, P.E., F.NSPE stationed at the Pennsylvania state flag during the NSPE House of Delegates installation ceremony

On Capitol Hill

John D. Wanner, CAE

Senate passes Registration Act Amendment

Legislation that brings mandatory continuing education requirements to Pennsylvania passed the Senate during the last week of June. Senate Bill 655 was originally introduced to tighten the laws title protection provisions for use of the term “engineer.” It was amended in the Senate Consumer Protection and Professional Licensure committee to also require that engineers obtain 24 contact hours of continuing education every two years. Later the bill was amended to require the same continuing education requirements for land surveyors. Not to be left behind, the geologists were also covered by the provision when the bill was amended on the Senate floor. That amendment also makes the geologists testing procedure a two part exam (like the EIT) by adding a Geologist In Training (GIT) section. The bill passed the Senate unanimously. It has since been referred to the House Professional Licensure committee.

Budget Includes Grants For Engineering Schools And MATHCOUNTS Funding

It took until July 2nd, but the Legislature eventually agreed upon a Commonwealth budget after many hours of negotiations and uncertainty. PSPE again secured funding for the Engineering Equipment Grant program which provides matching grants for ABET accredited schools to use in upgrading their laboratory equipment. The \$1 million dollar appropriation has been a priority for PSPE for more than 20 years. The effort has been more difficult in recent years as the money has not been included in the Governor’s budget and must be restored by the Legislature.

Additionally, the PA Department of Education appropriation to support the MATHCOUNTS program was likewise restored by the Legislature. The \$75,000 grant recognizes that the Pennsylvania competition involves more schools than any other state. Both the engineering equipment grant program and Mathcounts appropriation were funded at the same level as last year. The Governor is expected to sign the budget.

Legislative Activity

HB 496 RE: Destruction of Survey Monuments (by Rep. Sue Cornell, et al)

Amends Title 18 (Crimes and Offenses) making it a summary offense to intentionally cut, injure, damage, destroy, deface or remove any survey monument or marker and a misdemeanor of the second degree to willfully or maliciously cut, injure, etc. a survey monument or marker in order to call into question a boundary line. Violators would be liable for the cost of the re-establishment of permanent survey monuments or markers by a professional land surveyor and all reasonable attorney fees. The bill states it is an affirmative defense to any prosecution for an offense under this section that the survey monument or marker was improperly placed by a professional land surveyor.

Passed House, 11/21/2005 (194-0)

Passed Senate, amended, 6/21/2006 (50-0)

House concurred in Senate amendments, 6/27/2006 (199-0)

Signed in the House and Senate, 6/28/2006

Approved by the Governor, 7/7/2006. Act No. 72 of 2006

HB 881 RE: PA Construction Code Act Amendments (by Rep. Bob Allen, et al)

Amends the PA Construction Code Act by providing that a municipality may not require that any construction document be

prepared by an architect or other license design professional unless the work is required to be performed by an architect or any other licensed professional by the Architects Licensure Law or other applicable statute. The bill provides that the fee for an appeal to the board of appeals for a municipality that is administering and enforcing this act would be less than the costs of the public notice of the hearing, appearance fee for the court reporter and administrative fees as necessary. The bill states that in the case of an appeal or request for variance or extension of time involving the construction of a one-family or two-family residential building, the board of appeals would convene a hearing within 30 days of the appeal and would render a written decision to the parties within five business days of the last hearing. If the board fails to act within the time period the appeal would be deemed granted. The bill also states that in interpreting a provision of the Uniform Construction Code (UCC), a construction code official, board of appeal or a court may rely upon and may consider relevant written interpretations of any organization whose referenced standard is listed in the International Building Code or International Residential Code or the regulations promulgated under this act or any municipal construction code ordinance. The bill also provides timelines for a municipality’s decision to grant or deny an application. It requires the code administrator to identify the elements of any application not in compliance with the relevant provisions of the UCC and provide a citation of the specific provision. Under the bill, a construction code official or a third-party agency is allowed to perform inspections if a code administrator fails to complete a requested inspection within two business days after the request. A municipality

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improvement contractor or renewal of that certificate would be accompanied by a fee of \$50, and would be renewed on a biennial basis. After completion of the application and payment of the fee, the bureau would issue the home improvement contractor a registration certificate identifying the name of the individual contractor, name and address of the business and a registration number. The legislation also outlines the requirements in home improvement contracts. The bill also provides for the offense of home improvement fraud, and provides for penalties. Lastly, registration under this act would preclude any requirement of payment of a fee or registration of any home improvement contractor by any political subdivision. Political subdivisions would be permitted to require building permits and local enforcement of the building code for that political subdivision, for which a reasonable fee may be charged.

Amended on Senate floor, laid on the table, removed from the table, 6/20/2006

Passed Senate, 6/26/2006 (36-14)

Referred to House Consumer Affairs Committee, 6/27/2006

SB 1104 RE: One Call System (by Sen. Tommy Tomlinson, et al)

Amends the Underground Utility Line Protection Law further providing for the title of the act, for definitions, for duties of facility owners and for the duties of the One Call System; providing for liability, fees and governance of the One Call System; further providing for applicability; providing for the duties of project owners and for rights of the Auditor General; further providing for the governing board of the One Call System, for fines and penalties and for applicability to certain pipeline systems and facilities; providing for a voluntary payment dispute resolution process, for best efforts, for removal or tampering with a marking, for determination of position and type of lines and for impairment of rights and immunities; further providing for expiration; repealing provisions of the Propane and Liquefied

Petroleum Gas Act, concerning the prohibition of certain liquefied petroleum gas facilities or distributors from being subject to the Underground Utility Line Protection Law; and making an editorial change.

Amended on Senate floor, 6/22/2006

Passed Senate, 6/26/2006 (50-0)

Referred to House Consumer Affairs Committee, 6/27/2006

SB 1158 RE: Residential Visitability Design Tax Credit Act (by Sen. Jim Rhoades, et al)

Provides for a tax credit to encourage property owners to include visitability design features on their properties. The bill states that the governing body of a local taxing authority which levies a tax on residential property is authorized to and may, by ordinance or resolution, provide a residential visitability design tax credit against a real property tax levied on such property. The credit may be offered to residential owners if the uniform design standards are provided within the eligible residential units. The tax credit would be limited to any new or renovated dwelling that contains visitability design features which will enhance the usability of the dwelling for persons with significant mobility impairment. The amount of the tax credit would be determined by the governing body and would not exceed \$2,500, or the total amount of the increased amount of property taxes owed during the first five years from the time the tax credit is approved, whichever is less. The bill adds that architectural design of a visitable home must comply with certain requirements. "Visitability design" is defined as the presence of architectural design features which enhance access and usability for visitors and residents who have significant mobility impairment and which minimize the cost of full accessibility modifications, if necessary, at a later time.

Passed Senate, 6/27/2006 (50-0)

Referred to House Local Government Committee, 6/28/2006

SB 1166 RE: Capital Budget (by Sen. Noah Wenger, et al)

An act providing for the capital budget for the fiscal year 2006-2007, which provides \$845,000,000 for capital projects; itemizing transportation assistance and redevelopment assistance projects to be constructed or acquired or assisted by the Department of Community and Economic Development and the Department of Transportation, together with their estimated financial costs; authorizing the incurrence of debt without approval of the electors for the purpose of financing the projects; and stating the estimated useful life of the projects.

Passed Senate, 3/22/2006 (48-0)

Reported as amended from House Appropriations Committee, read first time, and laid on the table, 6/20/2006

Removed from the table, read second time, and Rereferred to House Appropriations Committee, 6/21/2006

Reported as amended from House Appropriations Committee, 6/30/2006

Passed House, amended, 7/1/2006 (198-0)

Received as amended in Senate and rereferred Senate Rules and Executive Nominations Committee, 71/2006

SB 1179 RE: PA Construction Code Act (by Sen. Jim Rhoades, et al)

Amends the PA Construction Code Act by adding that the act would not apply to the installation of aluminum or vinyl siding on an existing residential or commercial building. The bill also provides for the training of inspectors and states that an applicant who is a member of a religious sect may be exempt from a lumber or wood provision, not related to pressure treatment, of the Uniform Construction Code if that sect has established tenets that conflict with the provisions. Lastly, the bill states coal-fired boilers installed in residential buildings must be designed, constructed, and tested in accordance with the requirements of Chapter 20, Section M2001.1.1 of the International Residential Code, except these boilers would not be

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subject to the stamping requirements.

Passed Senate, 6/5/2006 (48-0)

Amended on House floor and passed House, 7/1/2006 (198-0)

Senate concurred in House amendments, 7/1/2006 (49-0)

Signed in the Senate and House, 7/5/2006

Approved by the Governor, 7/7/2006. Act No. 108 of 2006

New Bills Introduced

HB 2834 RE: Community Paper of Mass Dissemination (by Rep. Ron Marsico, et al)

Amends Title 45 (Legal Notices) by adding that a government unit may authorize publication in a community paper of mass dissemination in substitution of publication in a newspaper. The bill provides a definition of “community paper of mass dissemination.”

Referred to House Judiciary Committee, 6/26/2006

HB 2876 RE: Sales Tax Exclusion for School Construction (by Rep. Scott Boyd, et al)

Amends the Tax Reform Code by exempting construction contractors working on a school building from sales and use tax.

Referred to House Finance Committee, 7/1/2006

Upcoming Meetings of Interest

Tuesday, August 29, 2006

House Professional Licensure Committee Task Force on Victims Rights

9:30 a.m., Room 205 Ryan Office Building

Public hearing on:

HB 2101- providing for mechanism for individuals aggrieved by professional or occupational licensees to recover losses incurred; establishing Professional & Occupational Affairs Recovery Fund; providing for power & imposing duties & making a repeal.

HB 2102 - providing for advocacy for victims of improper action by licensed professionals; imposing functions on the Commissioner of Professional & Occupational Affairs & the Bureau of Professional & Occupational Affairs.

HB 2103 - Amends Title 18 (Crimes & Offenses) further providing for definitions & for the offense of intimidation of witnesses or victims, retaliation against witness, victim or party & for retaliation against prosecutor or judicial official.

2006 HOUSE Fall Session Schedule

September	25, 26, 27
October	2 (non-voting), 3, 4, 16, 17, 18, 23, 24
November	13, 14, 15, 20, 21, 22, 27 (non-voting)
Session Ends	November 30

Fall Senate session schedule has not been announced

Copies of all bills of interest are available from the PSPE office, or they can be accessed via the Internet at <http://www.legis.state.pa.us/WU01/LI/BI/billroom.htm>. ■

PSPE Calendar of Events

29	30	1	2
2006			
September 9	MATHCOUNTS Coordinators Meeting Harrisburg, PA		
September 14	Pennsylvania Engineering Foundation Conference call		
September 22	PSPE Executive Committee Meeting Altoona, PA		
September 22	PSPE Reception Railroaders Museum, Altoona PA		
September 23	PSPE Board of Directors Meeting Altoona, PA		
October 19-21	NSPE Northeast Region Meeting The Saratoga Hotel & Conference Center Saratoga, NY		

President's Message

Harve D. Hnatiuk, P.E., F.NSPE



I want to begin my first President's Message by extending congratulations

and thanks to 2005-06 PSPE President Harry Garman, P.E., P.L.S. for his efforts last year. Harry provided much leadership within our ranks and represented PSPE at national meetings in Washington and Boston as well as the Northeast Region meeting in Portsmouth, NH. I believe he will be one of our best Immediate Past Presidents ever and I am glad to have him on our Executive Committee during my time as your President.

We began this year and closed our past year at the Engineers Conference in King of Prussia from May 18-20. The conference kicked off with a golf outing, offered educational opportunities, was full of camaraderie and included great meetings and a wonderful Installation and Awards Banquet. If you were there, you know how great a gathering it was. If you were not there, I encourage you to come to next year's conference with, however, one caveat: Once you get to a conference and participate in it, you won't want to miss any future ones! But that's a good thing.

The conference could not have happened without the great work done by Jen Summers, our Deputy Executive Director, and two other wonderful friends of mine who also happen to be colleagues and fellow members of the Valley Forge Chapter of PSPE – Frank Stanton, P.E. and Paul Dugan, P.E. If you have either of these professionals as part of your team, your team will be successful. If you have both of them on the team, even greater things will happen...and they did in King of Prussia. Thank you, Paul and Frank.

My thanks and continued appreciation is extended to the President of Maida Engineering, Inc. (where I work), Joseph F. Maida, P.E. Joe, at the time that I interviewed with him to join his firm and to this day, has always been a firm believer in the PE license and the importance of active participation in PSPE. Joe has supported my involvement in PSPE and NSPE to an exemplary degree. As I stated in my remarks at the Installation and Awards Banquet in May: "More leaders of engineering firms should be like Joe Maida."

It is my belief that our focus for this year must include some words that begin with the letters "E" and "I". Realizing that the landscape of Pennsylvania includes much agriculture, I toyed with coming up with two sets of E's and I's followed by an "O"...but for now decided to leave the "O" out.

"E" is the first letter of the word "Engineer" of course and "I" is the first letter of "Intelligent." Every day, as an engineer, I am grateful for the intelligence that has been given to me as well as the opportunity to use it in a productive way to design new infrastructure for all citizens and to improve industrial facilities so that the many people who work there can work more safely, more efficiently, more comfortably, and more productively and thereby create more jobs, contribute to an improved economy and empower more families. We do this every day, as engineers. This is our story, our heritage, our legacy...and this story needs to be told more. And, it will be.

"E" also begins the word "Engagement" and "I" also starts the word "Initiative". These are indeed two keywords for this year's activities in PSPE. PSPE has come out of the starting gate running hard this year. On June 9-10, we held a strategy management session and leadership conference in Carlisle. The Executive Committee has already had several

conference calls and is involved in moving the planning process forward in a timely manner.

All members who are on the PSPE e-mail list will receive a survey in early August that can provide great input to be used in the completion of our Strategic Plan. When you receive your survey, please use it to provide your thoughtful input.

Through this engagement of all members of PSPE, the volunteers who are putting the plan together will understand what strategic issues are most important to our organization and what our present priorities are. The Strategic Plan will include a Vision Statement and a Mission Statement as well as a listing of our Values. A list of goals for 2006-07 will also be part of the plan. It will be ready for review and approval at our September 23rd Board of Directors Meeting in Altoona.

Action plans (i.e., "event sequences") will follow that will engage our entire membership through PSPE committees, PSPE practice divisions, our regions and our chapters.

It is of critical Importance that all members of PSPE are Engaged in this process at all times...it is an ongoing march toward making PSPE all that it can be and all that we as professional engineers in the Commonwealth of Pennsylvania deserve it to be. It is our organization. Our continued commitment to ownership of PSPE as well as our focused, strategic efforts this year will have tremendous positive impact.

Harve D. Hnatiuk, P.E.

PSPE 2006-07 President

(T) 215.542.8700, x133

(E) HarveHnat@aol.com

Risky Business

Part IV: Some Days The Glass Just Might Be Half-empty

Rebecca Bowman, Esq. P.E.

This is the fourth of a five-part series examining competent risk assessment. Just to refresh your recollection, there are five components required for a competent risk assessment. First, the organization must define critical assets. Second, the organization must agree on goals, objectives, and standards. Third, the organization must achieve agreement on reasonably foreseeable hazards to those assets. Fourth, the effects of these hazards on the critical assets must be evaluated. Finally, the design of the assets must be adjusted to address and incorporate loss prevention strategies to assure that the goals and objectives can be met in the event of a hazard.

We have talked about the need to set aside positive assumptions to assume the worst. We have explored the process of identifying your organization's critical assets. We have examined the process of setting performance and organizational goals, objectives, and standards for critical assets. We carefully considered the potential hazards.

After carefully reading the column in the January/February issue, you completely identified your organization's critical assets, right? And, after carefully reading the column in the March/April issue, you established standards for your critical assets, right? After diligently reading the column in the May/June issue, I am sure you completed an assessment of hazards that could impact your organization. Now, you are ready to proceed to step 4, assessing impacts.

You probably did part of this assessment instinctively as you completed step 3, but being intentional is one of the most important aspects of risk management. When you anticipated hazards, you contemplated large-scale and local hazards, natural and unnatural hazards, and all those in your supply chain.

You creatively loosed your thought shower to expand your list. (By the way, I had a question about why brainstorming is no longer politically correct. A seizure is literally a storm in the brain, so some groups representing people with seizure disorders found the casual use or approving use of the term, "brainstorm," to be offensive.)

Now we are going to deliberately walk down your hazard list and assess ways in which each of those hazards could affect your business. Discard none of your hazards until you have specifically considered whether or not that hazard could affect you. Do not just contemplate things that you know have happened in the past; look into the future. For example, one client-company of mine was keeping an eye on the civil war in the Sudan. Knowing that the U.S. was permitting clusters of the Lost Boys to enter the country, this client decided to cultivate the ability to communicate with these new residents. Three years later this client was one of only a few companies ready to immediately apply for and receive special training aid for assisting in resettling and employing these Sudanese refugees. That kind of anticipation is what we are looking for here.

If you do not currently utilize a supplier or vendor in the Pacific rim, you might be tempted to discard tsunamis as having no adverse impact on your business. However, consider the possibility that your major software supplier may transfer technical support to that area of the world. Suddenly, a tsunami has a potential impact on your business. If you were to find yourself with an emergency need for technical support to complete a major project with liquidated damages for late delivery, what might failing to consider this hazard do to your bottom line?

One company I work with supplies technical personnel to clients. It was discovered by a government agency funding the client that one of the company's personnel had accepted a bribe and provided defective work. The company immediately stepped in with full cooperation, supplied replacement personnel, and re-performed the work at no cost. However, although the company was not disbarred from bidding future projects, the company suddenly found that its bidding success rate had dropped significantly. This drop occurred not just in the locale of the scandal, but across the type of project funded by the agency that revealed the scandal. This company has learned firsthand about the devastating impact of an "unnatural" hazard.

Think about the impact of laws and regulations, too. You may have thought about the direct impact of a crash at your payroll vendor's place of business (you cannot deliver paychecks), but have you considered potential fines for violating wage payment laws as a result of your inability to deliver paychecks? In the event of a large-scale disaster such as Hurricane Katrina, enforcement offices are generally realistic. However, if your problem is a local one (a water main break), a self-contained one (a disgruntled employee hacking into your system), or one that could be anticipated (needing an uninterruptible power supply for your mainframe), enforcement officers are much less likely to be flexible, patient, or accommodating. One client of mine is having trouble with its accounts payable manager. Sometimes vendors and subcontractors get paid and sometimes they do not. In deciding on a course of action, the client gave serious attention to the impact of late and non-payments on relations with its vendors and subcontractors. But it had failed to realize

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the full range of potential impacts and was stunned when a subcontractor sued for (and won) interest and penalties under the Prompt Payment Act.

You may discover that this analysis generates some additions to your hazard list. I expect it to. That’s healthy. In a sense, you are moving backward up a decision tree. Since you can only proceed up one branch at a time, other branches you had not considered may be revealed.

Now that you have identified your organization’s critical assets (Step 1), established performance and operational goals, objectives, and criteria for your critical assets (Step 2), assessed hazards (Step 3), and evaluated impacts (Step 4), you are ready to proceed to Step 5, designing adjustments to your organization to meet the standards you have set. We’ll take a look at that next time. That’s the fun one. In the meantime, an afternoon completing your impact evaluation can help you prevent yours from being a Risky Business.■

The “Risky Business” column offers articles covering liability from both the legal and engineering perspective. Mrs. Bowman’s articles share general information and should not be relied upon as professional legal advice of either a general or specific nature. Rebecca Bowman is a civil engineer-attorney in solo private practice in McMurray, Pennsylvania for more than 25 years. Her practice is a certified woman-owned business. Her B.S. in Civil Engineering is from the University of North Dakota.