QUALITY FOCUS

Volume 2, Issue 4

Winter, 2008

QUALITY PROFESIONALS IMPACTING ENERGY EFFICIENCY

Green is the new Red, White and Blue (Thomas Friedman)

Chair's Message

Like those in many professions we spend much of our time mired in the details necessary to test and improve the reliability of organization's core processes, with a goal of achieving excellence in all areas of manufacturing, health care, food service or customer service, just to name a few. Discipline is often critical to performing our core job functions and builds the foundation of the credibility of the quality profession. David Verbitsky describes the history of development of the science of reliability upon which many of us have built our profession.

In this article today, I want to encourage all the members of ASQ Princeton to expand your vision to include an examination of your organization's carbon footprint. My encouragement comes from an awareness of our energy uses and the solid waste that results from our products and services as well as the misaligned incentives around recycling. Every organization is at risk of contributing unnecessarily to overall cost, safety concerns and ultimately a negative downstream influence on human rights and international hunger. The down stream impact results when oil rich nations with endless customers don't need to develop their own industries or women in their cultures. The more we diminish the ozone layer and enhance climate warming the more we risk droughts in high risk areas and Katrina-like hurricanes elsewhere.

Credited in the title, Thomas Friedman describes an ideal concept of material life cycle as having a life of cradle to cradle, rather than the concept of cradle to grave as we've been acclimated. The simple math explanation is that all materials would be in a constant cycle of reuse: everything we use is being reused and nothing ends up in a landfill after use by our customers, but is put back into the system. Simple instructions can include directions on how to recycle the packaging and product. Even President-elect Obama talked about personal responsibility for turning off lights. We can only hope at the White House many are on an automatic system with energy efficient light bulbs.

(Continued on page 2)

Inside this issue:

QUALITY FOCUS NEWSLETTER

Quality Focus
Princeton Section #307
American Society for Quality
http://www.Asqprinceton.org

MEMBERSHIP REPORT
By Peter Sheren– Membership Committee Chairperson

EORO– Each One Reach One

DON'T FORGET TO EORO - Refer a new member and get some BUCKS!

You know the value your membership in ASQ has created for you in the quality profession. Education, conferences, professional certification, literature resources and networking are among the many benefits of ASQ membership. Why not share the experience with someone you know? Many of your fellow Princeton Section members are already doing just that by participating in the Each One, Reach One (EORO) referral program. It's easy. Begin by logging on to the ASQ web site using your login and password. In the upper right side of the page click the box titled Refer a Member. The next page has a referral section to enter a name and email. After clicking Send, an email is sent inviting the individual to join ASQ. If you would prefer to use a printed application, it is available though the web site link. Either way if they do join, you will receive 5 ASQ Bucks which you can use or accumulate to apply towards books, seminars, certifications and dues. Get your company site or the entire enterprise to join and receive 120 or 1000 Bucks!

As of August our section membership role stands at 792 paid individuals. Included in this total were 404 regular, 352 senior, 6 fellows, and 9 students. The Princeton Section would like to recognize and welcome the following new and transfer members joining our section over the last several months.

September

Michael Bowblis
Kimberly L. Brooks
Daryck Brown
Robert M. Dugan
Corey L. Harrison
John A. Keeley
Kristine M. Kraus
Laura L. Lochetta
Francesca A. Lucci
Dong Lu
Sanai A. Lunsford
Anil Mehra
David B. Novack
Opeoluwa O. Odusan
Bhavin Vaishnav
Edward A. Weissenburger

October

Josaih C. Abaelu
Carmelita L. Bautista
Susan Byrne
Larry Depew
C. S. Doddaganahally
Eleanor J. Fox
Steve Grossman
Linda Hoover
Loretta Inamoto
Teri L. Jensen
Gordon Kingsley
Dennis M. Knox
Carlos A. Lanchez
Susan Mota
Annette C. Owens
Vickie M. Papia
Andi B. Robbins
Anushree Sharma
Kelly Svihla
Dennis S. Witker

November

Dipti Dharia
Doris A. Flores
Sean Foreman
Kamlesh Gajjar
Beth Kelly
Russell J. Kiernan
Michelle A. Mahon
Ivan Maldonado

Do you have a story you would like to share with the Princeton Section? If so, contact PrincetonASQ@yahoo.com.

CHAIR'S MESSAGE (cont'd from p. 1)

Quality professionals are in an optimal position to take leadership roles and implement environmental friendly initiatives and evaluations . Organizations which adopted a triple bottom line of quality, financial performance and social responsibility will be most open to new ideas, have many of the first generation initiatives in place already and a willingness to participate in benchmarking. They will only continue to improve and serve as role models for all of us still learning. Anyone with success stories from your organization, please share them with the newsletter committee (jade.chin@asqprinceton.org). as ASQ Princeton supports our nation's success in overall energy efficiency .

ASQ CERTIFICATION/ RECERTICATION PASS LISTING

SECTION 0307 OCTOBER 18,2008

CQT (Certified Quality Technician)
Aurora Hill

CSSBB (Certified Six Sigma Black Belt)
Corey L. Harrison
Edward M. Hirschman
Lisa Lifer
Frank Mondoro
Snehal Parikh
Gavin M. Warnes

CQM (Certified Manager of Quality/ Organizational Excellence)
Alice Krumenaker
Monica P. Lin
Frank Scarcia
Terry Vitaliano

WEBSITE RE-DESIGN UPDATE

By Bhavani Veerapaneni

ASQ Princeton section will soon have a new website! It will be easy to navigate and will have a very clean appearance. The website will offer members and nonmembers the following benefits:

1. Register for dinner meetings and educational courses online.
2. Pay for dinner meetings and for courses using credit cards. This will provide real- time information on availability of courses, site tours, etc.
3. A section for feedback from our membership.

The enhanced website will solve a number of logistical issues for both our members and our staff in organizing the different events of the ASQ Princeton Section. The plan is to launch the upgraded website in the first quarter of 2009.

CERTIFICATION
By Jane Corby Recertification Chair

Hello, my name is Jane Corby and I am the new Recertification Chair for the ASQ Princeton section. In this article I would like to highlight some of the facts about the recertification process. Please do not hesitate to contact me with any questions you may have. I look forward to serving our section in this role. ASQ requires recertification every three years for the following certifications:

Certification	Recertification Required?
Biomedical Auditor (CBA)	Yes
HACCP Auditor (CHA)	Yes
Pharmaceutical GMP Professional (CPGP) *	Yes
Quality Auditor (CQA)	Yes
Quality Engineer (CQE)	Yes
Reliability Engineer (CRE)	Yes
Software Quality Engineer (CSQE)	Yes
Manager of Quality/Organizational Excellence (CQM/OE)	Yes
Calibration Technician (CCT)	Yes
Six Sigma Black Belt (CSSBB)	Yes
ASQ/DON Lean Six Sigma Black Belt (ASQ/DON CLSSBB)	Yes
Quality Inspector (CQI)	No
Quality Improvement Associate (CQIA)	No
Quality Process Analyst (CQPA)	No
Quality Technician (CQT)	No
Six Sigma Green Belt (CSSGB)	No

***Note:** CPGP is a new certification program that goes into effect in 2009.

Recertification can be achieved by submitting a recertification journal or by exam. All recertification information and documentation can be found on the ASQ website at http://www.asq.org/certification/recertification/index.html.

CERTIFICATION (cont'd from p.3)
By Jane Corby– Recertification Chair

Recertification by Journal

If you choose to recertify by recertification journal, you must obtain a minimum of 18 recertification units (RUs) over a three-year period starting with your certification date. RU credits can be earned in ten categories as defined in the Recertification Journal. Please note the maximum RUs defined for each category cannot be exceeded. A summary of the categories and how to earn RUs is included in the table below.

Category Code	Category	Recertification Units	Maximum RUs Allowed
A	Professional Development	RU per hour 1 CEU = 1RU	9.0
B	Employment – Full Time	0.3 RU per month or 3.6 RUs per year	10.8
	Employment – Part Time	0.15 RU per month or 1.8 RUs per year	
C	Instructor	0.15 RU per hour 1 Credit = 1.5 RUs 1 CEU = 1.5 RUs	10.8
D	Student	RU per hour 1 Credit = 1 RU 1 CEU = 1 RU	9.0
E	Meetings	0.3 RU per meeting 0.3 RU per workshop	9.0
F	Committees	1.5 per RUs per committee, per year	4.5
G	Certifications	1 RU per initial certification	3.0
H	Proctoring – Chief Proctor	1 RU per exam day	7.0
	Proctoring – Assistant Proctor	0.5 RU per exam day	
I	Electronic Media (Videotapes/Audiotapes)	0.025 per 15 minutes	3.6
J	Publishing—Paper	1 RUs as author 0.5 RU as co-author	9.0

To receive the employment RU credits, you must have at least one job duty, responsibility, and/or function that falls in at least one area of their certification(s) body of knowledge. For other categories, the activity listed must fall in at least one area of your certification(s) body of knowledge **or** be job enhancing; i.e., relating directly to your job duties, responsibilities, and/or functions or you are training on new duties, etc., to receive the appropriate RU credits listed, as set forth by your employer.

Recertification journals can be submitted up to six months before and/or after your expiration date (see Recertify Date on your certificate). If you submit your journal before the six months it will be returned. If you submit your journal after the six months, you will be instructed on how to recertify by exam. Please fill out the appropriate sections in the Recertification Journal and return with payment and all supporting documentation to me at the following address for review:

Jane Corby
461 Lexington Avenue
Neptune, NJ 07753
I will review your journal within two weeks of receipt

CERTIFICATION (cont'd from p.4)
By Jane Corby– Recertification Chair

Recertification journal fees are as follows:

Recertification Journal	ASQ Member Fee	Non-ASQ Member Fee
1 certification	$30.00	$50.00
2 or more certifications	$50.00	$50.00 EACH

Exam fees are as follows:

Certification	ASQ Member Fee	Non-ASQ Member Fee
Biomedical Auditor (CBA)	**$160.00**	**$310.00**
HACCP Auditor (CHA)	**$160.00**	**$310.00**
Pharmaceutical GMP Professional (CPGP)	**$160.00**	**$310.00**
Quality Auditor (CQA)	**$160.00**	**$310.00**
Quality Engineer (CQE)	**$160.00**	**$310.00**
Reliability Engineer (CRE)	**$160.00**	**$310.00**
Software Quality Engineer (CSQE)	**$160.00**	**$310.00**
Manager of Quality/Organizational Excellence (CQM/OE)	**$220.00**	**$370.00**
Calibration Technician (CCT)	**$105.00**	**$255.00**
Six Sigma Black Belt (CSSBB)	**$190.00**	**$340.00**
ASQ/DON Lean Six Sigma Black Belt (ASQ/DON CLSSBB)	**$190.00**	**$340.00**

Certification Synchronization

You may synchronize two or more of your certifications so that they all expire on the same date. To synchronize, all you need to do is include documentation and the 18 RUs required to recertify the certification that is currently due. On the ASQ Recertification Journal Application form in the Recertification Journal just indicate what other ASQ certifications you wish to have synchronized with the certification that is currently due. You are not required to provide evidence for any of the other certifications you are trying to synchronize. As long as the one certification that is currently due is approved then all other certifications, as indicated on the application form, will be pulled back to expire the same as the certification which is most currently due. Then for future recertifications you will only need to provide a total of 18 RU credits for all synchronized certifications on one application form along with one set of documentation

Certification Retirement

If you choose to retire your certification, please fill out the Retired Certification Status Form located in the Recertification Journal and return with payment to ASQ at the following address for review and processing:

ASQ
Attn: Recertification Coordinator
P.O. Box 3005
Milwaukee, WI 53210-3005

Fees for each certification are: $20.00 for ASQ members and $40.00 for non-ASQ members. Fees can be paid by credit card or check payments made out to ASQ.

EFFECTIVE AND EFFICIENT RELIABILITY FOR NON-RELIABILITY PROFESIONALS, HOUSEKEEPERS AND TOP MANAGERS (Subjective Reliability Thoughts without Formulas and Tears)

By David Verbitsky, PhD, CQE

I like the IEEE definitions of reliability (R) as "The ability of a system or component to perform its required functions under stated conditions for a specified period of time." As A. Einstein wrote, science is a drama of ideas. The history of R is an amazing transformation from obscure and sketchy information and an ambiguous, mostly intuitive practice, to a rather strong, repeatable theory and experiments resulting in great practical achievements. Initial knowledge came from different branches of science, engineering, manufacturing and field use in the middle of the 20th century. Frequently, a method of probes and errors was applied, sometimes very painful and costly. Gradually R maturated into a rather solid theory and practice. The latter is used by all mankind as a given, however, it required tremendous international efforts in many disciplines.

R's birth is typically attributed to a need of robust complex military equipment during WWII. It crystallized into an independent part of engineering during successive years of the technological revolution, fed by the cold war demands. These include, but are not limited to an almost simultaneous explosions of atomic, aerospace, electronic technologies, complex and dangerous nuclear, chemical power plants and systems. On the one hand, a number of system components have been exponentially growing, consequently increasing the probability of system failures. On the other hand, most technologies were new and their materials, designs and processes were facing new technologies, which led to failure modes. Besides, many of these products were intended to work in extreme environment and in life-support systems, which dramatically raised both the likeliness and cost of failures. In the 70s and 80s, new products were introduced into the aerospace and military (ASM) and many previously unique AMS technologies made their way to commercial and consumer markets. The latter ones used a lot of simplifications and mass production cost-saving innovations, which diversified reliability-related problems. This includes massive computerization and telecommunication; new demanding complex medical equipment; diverse transportation, business and consumer products, etc. Finally, near the end of the 20th century complicated software and information technology methods and practices were added making all products smarter and more attractive, but sometimes more vulnerable. Yet, R engineering and practice have managed these new challenges rather successfully.

Indeed, in the middle of the 20th century a simple, but expensive vacuum bulb or a discrete transistor normally worked about 500-1000 hours at room temperature. In the contrast, it is hard to accurately assess reliability of modern relatively inexpensive commercial, off-the-shelf (COTS), integrated circuit (IC) applying normal conditions, these tiny devices, which contain million transistors aided by sophisticated software typically feature with such high reliability that they don't fail for decades. In order to stress the corresponding system malfunctions and assess reliability, highly accelerated stress/life test methodologies (HAST or HALT, respectively) were developed. They exploit extremely harsh conditions and employ a number of complex devices (sometimes, thousand) to yield only a few failures. As a result, mass produced complex COTS products routinely work for years and demonstrate much higher reliability than their expensive and relatively simple old ASM predecessors of a half-century ago.

At first glance, R looks like a controversial symbioses of strong engineering and multidisciplinary science, with deep and broad multidiscipline experience. Modern R involves knowledge of physics kinetics and stability; chemistry of degradation processes; sophisticated diverse statistical analysis; electrical, electronic and mechanical engineering; advanced functional and stress testing; a great variety of special design and manufacturing tools, etc. Sometimes experienced R engineers who work in different industries or fields don't understand each other, use different sets of methods, emphasize different issues and even have different definitions of R and basic terminology.

Almost immediately after its birth, several theoretical and practical directions of R emerged.

- Probabilistic-based: assesses/predicts probability to/between failure dealing with theoretical models and statistical distributions; gathers field data; (MTBF, ANOVA; DoE, FTA, FMECA, etc.).
- Deterministic-failure analysis, material science; design and process analysis, etc.
- Empiric: tighten/accelerated/broaden burn-in, testing and inspections; diverse product and process qualifications; purchased component and material selection and control.

As usual, there have been a variety of mixtures/combinations of engineering judgment, knowledge, experience, intuition, and some pieces of the abovementioned. Each approach has its proponents and followers, addicts and detractors; benefits and drawbacks. Some engineers and especially managers tend to exaggerate their experience by over-emphasizing one or another, typically the most familiar concepts and methods ignoring others. Practice, however, almost always correct these trends. As any unbiased professional can determine, only when adapted to a specific situation and a combination all of the above is able to effectively and efficiently resolve or prevent complex problems under tough market or customer requirements.

PRINCETON SECTION GOES ELECTRONIC IN 2009!

NOTICE! IMPORTANT! NOTICE!

Yes, you heard it here first! ASQ Princeton Section had decided to convert all communication to section members to electronic (email) communication **ONLY**. That communications includes newsletters (starting in 2009), educational catalogs and the dinner meeting and tour announcements. The determinants of this decision were four-fold: cost, efficiency, supporting a green environment and 95-97% of our membership are open to receiving email communication. The printing, postage and mail service have been some of the highest cost areas in our section budget and we are hoping to redirect that expense into areas that will provide greater value to our members.

ACT NOW OR YOU MAY BE LEFT OUT!

Has your email address changed? Does ASQ know your email?
Approximately 50 of our members have requested email but have no email address on file with ASQ. Are you one of them? Only **you** can update this information. The procedure is painless and takes only a few minutes. Just follow these simple steps:
To Update or Add Your E-mail Address: * Visit www.asq.org
*Enter your member number and password in the "Log In Now" section.
* Select the "Manage Your Membership" blue box in the upper right-hand corner of the page.
* Update your e-mail address under "Change Contact Information".
* Change your e-mail preferences under “Change E-mail Preferences”
* If you need additional help, e-mail ASQ Customer Care at help@asq.org or call 800-248-1946.

PUBLICATION INFORMATION

The Quality Focus Newsletter is a quarterly publication of the Princeton Section of the American Society for Quality. The Quality Focus Newsletter announcements and articles are provided for the general interest of our members. The opinions and statements that are expressed in this newsletter are solely the conclusions of the individual writers. Concerns, suggestions, comments, and submissions may be sent to:

Editor, Quality Focus Newsletter
Princeton Section, ASQ
P.O. Box 471
Dayton, NJ 08810
or e-mail to: PrincetonASQ@yahoo.com

NEWSLETTER STAFF

The next publication:

SPRING 2009

Submission Deadline:

March 15, 2009

QUALITY FOCUS NEWSLETTER
American Society for Quality
Princeton Section
P.O. Box 471
Dayton, NJ 08810

Non Profit Org
US Postage
Paid
Permit #80
Princeton, NJ