



COLUMBIA BASIN SECTION 614 NEWSLETTER

*Serving Central and Southeastern Washington
and Northeastern Oregon*



Issue 07-06

June 2007

CHAIR'S CORNER

Steve Prevette
Fluor Hanford
Chair, ASQ Section 614

We had a great dinner meeting in May – lots of food and lots of good information from Schweitzer Engineering Labs. Sheila Horn gave a presentation, including video, about SEL's quality programs to the 14 attendees present. As usual, Shilo Inn cooked a bountiful buffet – and many of us went home with doggie bags. Seemed like we hardly made a dent in the lasagna pan.

I'm pleased that meeting attendance has gone up from the old days of maybe a half dozen folks present to this year's 12 to 18 per meeting. And we've seen a lot of new faces, and faces from years past. I believe the Section has achieved a level of stability this year, following some tough times a few years ago. Our total membership is staying pretty steady at around 95 members. This at least allows us to make plans for the future, and know that the Section will be viable financially and membership-wise.

The June meeting will bring in Dennis Arter, our local audit celebrity ("The Audit Guy"). This will wrap up the 2006-2007 season. There will be no dinner meetings in July or August, and we will resume with a new season in September. As it works out, Rich Higgins and I will not be able to attend, but Howard Rew and Jo Haberstok will step in and take charge in our stead. Rich is off to play poker in Las Vegas in the "World Series of Poker". Good luck to Rich. For me, it is my wife Jennie's birthday on the fifth (I won't say how many years), so we'll be out to a romantic dinner.

Rich Higgins, our newsletter editor, would like to shift to distributing the newsletter on the internet. We'll send you an email stating the newsletter is available, and a link to the newsletter. For those that do not have access to the internet, we'll continue to offer a hard copy option. We'll give this a trial, and please let us know if you have any concerns, or compliments.

In June I'll be off to Seattle and the University of Washington to teach the two day statistics course we did here in March to UW staff. Should be an interesting experience, and they desire to apply Statistical Process Control to the financial and operations data at UW. By the way, if you are involved in a Quality project at work or outside of work, please be sure to drop us a note so we may let members know about quality goings-on with our Section.

Programs for 2007 – 2008. (yes, repeated from last month) The new season will be upon us sooner than you think. My how time flies. Jo Haberstok did a great job this year putting together the program plan for the year. However, she can't do this job alone. We still would love to have someone volunteer as Programs Chair, and for folks to join in on suggesting and lining up speakers and road trips for next year. If you'd like to contribute to another fine year of Section events, please volunteer – you may contact Jo or me. And this is a great opportunity for folks outside of the Tri Cities who would like to contribute. The section will reimburse for any necessary phone bills and postage for the effort.

Steve Prevette

FROM THE EDITOR

I hope you find the new format to your liking. Since we are moving to an on-line only version, I decided to let my creative juices leak out (sorry, I'll wipe it up,,,) and took a stab at totally revamping the layout and appearance of the publication. Let me know what you think.

For those of you who would rather receive this by mail, let me know, and I will forward your copy by "snail mail".

Rich Higgins
Rich_Higgins@charter.net

VICE CHAIR'S COLUMN



Jo Haberstock
Fluor Hanford
Vice Chair, ASQ Section 614

It's hard to believe it's nearly June already. Summer is here. Time for picnics, backyard barbecues, playing in the park, walks along the river (or boating on the river), working in the yard, swimming, tennis, baseball, volleyball ... gee, I'm starting to get tired already!

Our June 5 speaker, Dennis Arter, is well known to many of you, as he has been active with both the local and national levels of ASQ for a lot of years. I am sure we will learn a lot from him about process-based auditing. And the catering crew from O'Callahan's at the Shilo always provides a great buffet, so I hope you will be able to join us for this meeting.

If you haven't figured it out from my previous columns, I usually try to talk a little about something related to quality tools each month ... communications, leadership, teamwork, continuous improvement opportunities, etc. This month I want to share some of my thoughts about computers. Has this ever happened to you: You work really hard on something, possibly something like, oh, say an article for a newsletter (or maybe it's a big spreadsheet of information for another purpose, or a long letter to your favorite aunt) ... then your attention is diverted elsewhere for a few minutes, and when you come back to finish up later, you find that the computer piranhas have gobbled up your earlier work !!?!?!?

Well, that's my excuse for almost being late in getting my column submitted on time this month. Darned computers anyway! I could have sworn that I had saved the file. I even did several searches to try to find it, but to no avail. It was gone – gone – gone (like a freight train, gone like yesterday).

When I think about quality ... continuous improvement ... meeting customer needs ... now *here's* an area I think we would all benefit from some improvement in. I'm talking about computer software/programs, of course! I'm all for upgrades, and I'm not opposed to learning something new or different from time to time. But I still have to confess that I liked the old WordPerfect 7.0 much better than even the latest version of Word. (Okay, I guess I probably just dated myself there.) I liked how much more "friendly" WordPerfect was, and how much easier it seemed to be to troubleshoot problems. Yes, I know I could go out and buy and use the latest version of WordPerfect (what's it up to now, probably 21.0 or something?), but I have to use Word at work, so I have

learned to adjust fairly well. There are still a lot of frustrations, though.

It used to be that most companies had really good technical support, either via a HelpDesk team or a really knowledgeable individual(s) in your immediate work group. But nowadays, when we are all being expected to accomplish more and more work with fewer resources, we (well, maybe it's just a few of us) end up spending way too much of our time just trying to "fix" some odd formatting issue that has occurred in the document we are working on. I'll give some props to the "Help" drop-down menus, as I have sometimes been able to find the answer to my question there. Of course, even with "help," a person has to put in the right words to get the needed assistance screen.

Overall, I really do find a lot of the computer features and programs to be very useful. But there are still some days ... I often think back fondly about the old IBM Selectric typewriter I used in my early career days in banking and when I first started working at the Hanford Site ... Wite-Out® was my friend, and I was the queen of "cut and paste" back then!

Ah ... the good old days, huh?

They say change is good. And, especially in today's ever-changing business environment, it's often inevitable. So, until next month, I guess I'll just get back to work now. Maybe by next month I will have figured out how to fix that pesky table of contents and the other problem with the document headers that keeps plaguing me. Oh yeah, and I'll be sure to "Save" my work on a more frequent basis!

- Jo Haberstock

PUBLICATION INFORMATION

The ASQ Columbia Basin Section 614 newsletter is published on a regular basis to inform members (and potential members!) about Section 614 activities and other news/information we feel may be of value to quality professionals. To be considered for the next newsletter, input must be received by the 22nd of the month. Publication/Editorial Staff: Rich Higgins (Rich_Higgins@charter.net).

CAREER CONNECTIONS

To be considered for posting in the newsletter, announcements must be submitted by an ASQ member and be of potential service to other members. Announcements may include job postings, training opportunities, or requests for assistance. Due to space limitations, please keep them brief. **See last page.**

WASHINGTON STATE QUALITY AWARDS PRESENTED

by Jo Haberstk

The Washington State Quality Award (WSQA) program recognizes organizations that have implemented and achieved superior outcomes in public and private sectors including for-profit, nonprofit, healthcare, public sector and education. Applicants are evaluated by strenuous criteria that include: leadership, strategic planning, customer and market focus, measurement, analysis and knowledge management, human resource focus, process management and business results. The WSQA offers progressive levels of awards, starting with a Certificate of "Commitment" for organizations just beginning to adopt and apply quality principles as defined by the WSQA Criteria. The next level is "Achievement" for those that have demonstrated significant progress toward excellence and processes for continuous improvement. "Leadership" is an advanced level for organizations that have demonstrated significant progress toward excellence. The highest award level available is "Excellence."

The four 2006 award recipients were announced at the annual WSQA Symposium held at the Greater Tacoma Convention and Trade Center on May 9. Governor Christine Gregoire presented awards as follows:

University of Washington's UW Medicine - Leadership Level Award - UW Medicine, with clinics and programs located in various neighborhoods throughout Seattle and Bellevue, works to improve the health of the public by advancing medical knowledge, providing outstanding primary and specialty medical care to people of the region, and preparing tomorrow's physicians, scientists and other health professionals. The UW Medical Center ranks 10th among America's best hospitals in *U.S. News & World Report's* honor roll. UW Medicine is nationally recognized for scientific research and training, physician education and exceptional patient care.

Franciscan Health Care - Leadership Level Award - Franciscan Health System is a comprehensive health care organization that includes St. Joseph Medical Center of Tacoma; St. Clare Hospital in Lakewood; St. Francis Hospital in Federal Way; an expanding network of primary-care and specialty-care clinics in Pierce, South King and Kitsap counties; and Franciscan Hospice House in University Place. They are a non-profit, faith-based organization with a mission to nurture the healing ministry of the Church, emphasize human dignity and social justice, and create healthier communities. Franciscan currently has approximately 6,000 employees and a Medical Staff with approximately 1,400 members.

Richland School District - Achievement Level Award - The Richland School District (RSD) serves the communities of Richland and West Richland. The District's mission is to provide students with an education which results in high achievement and good citizenship. RSD served 9,964 students in grades K-12 for the 2005-06 school year and this year's enrollment is 10,315. Among reasons cited by WSQA judges for honoring RSD: commitment to a strong community presence based upon collaboration and communication with its stakeholders; recognition of the value of support services as an ally and partner with the instructional program; and use of district action plans and building school improvement plans to improve student learning.

Qualis Health - Achievement Level Award - Qualis Health is a private, nonprofit organization that offers programs and services to generate, apply and disseminate knowledge to improve the quality of healthcare delivery and health outcomes. In operation since 1974, the firm has headquarters in Seattle, Washington, with offices in Boise, Idaho, Anchorage, Alaska, Tustin, California, and Columbia, South Carolina. For more information about the Awards and the process for submitting your organization for consideration for next year's awards: www.wsqa.net

WINNING TEAMS AWARDED GOLD, SILVER, AND BRONZE AT ASQ WORLD CONFERENCE

Five teams took top honors in a tough competition at the 22nd International Team Excellence Competition at the ASQ World Conference on Quality and Improvement held in early May in Orlando, Florida. The live contest featured teams from around the world hoping to achieve their special moment as leaders in quality improvement and performance. Team participants included representatives from many large, well-known companies as well as from smaller organizations, too, all vying for international recognition and the ASQ Gold, Silver, and Bronze Awards. In a rousing ceremony, this year's award winners were announced:

GOLD - The Boeing Company/Boeing C17 Stuffed Tailcone Team (Long Beach, California)

Responding to safety concerns raised by factory personnel, the Stuffed Tailcone team used problem solving tools to generate solutions that eradicated unsafe conditions during installation, and initiated process improvements with positive results in areas of quality, cost, and schedule with direct impact on organizational goals.

There was a Three-Way Tie for SILVER (A first for the process)

SILVER - The Boeing Company/Boeing C17 Obiggs II Team (Long Beach, California)

The C-17 On-Board Inert Gas Generating System II (OBIGGS II) Project replaced the existing system that protects the fuel tanks from explosion by filling the volume above the fuel with nitrogen-enriched air. The OBIGGS II team greatly enhanced reliability of the inerting system through outstanding teamwork, innovation, and dedication.

SILVER - The Boeing Company/Boeing C17 World Class Safety Team (Long Beach, California)

Responding to high injury rates and extremely high workers' compensation costs, Boeing's C-17 leadership embarked on a journey to become "world class" in safety. By benchmarking "best-in-industry" companies, employing expert safety consultation, and using root cause analyses, the team saw dramatic results from the development of an integrated safety management system.

SILVER - Department of Children and Families, Suncoast Region Team Scanit (Largo, Florida)

Team Scanit developed, piloted, and implemented an electronic imaging system for receipt, storage, and retrieval of all paperwork associated with the region's 190,000 public assistance cases saving \$269,816 the first year and \$310,126 annually thereafter. This enterprise solution improves accessibility to information, eliminates rework, and significantly enhances process capabilities.

BRONZE - CSX/Locomotive Fuel Process Improvement Team (Jacksonville, Florida)

The locomotive shutdown team increased shutdown time of idling locomotives, reducing fuel consumption across CSX. The project used CSX's Accountability Model and Six Sigma DMAIC process. A wide variety of qualitative, quantitative, and project management tools were used. The team generated savings of more than 14 million gallons of fuel worth \$28 million.

Since 1985, more than 800 teams from Canada, China, Costa Rica, India, Japan, Singapore, Mexico, and the United States have participated in this outstanding process. Well-known companies such as Baxter Healthcare, Honda, and Boeing have showcased proven results with long-term implications, resulting in cost-savings of millions of dollars. This year's team finalist savings resulted in well over \$49 million.

Next year's International Team Excellence Final Round Competition will be held at the ASQ World Conference on Quality and Improvement May 5-7, 2008, in Houston,

Texas. For information on how to participate in the International Team Excellence Competition, call 800-248-1946 X 7303 or e-mail gbalagopal@asq.org.

JUNE 5 ASQ SECTION 614 MEETING "Process Approach to Auditing" DENNIS ARTER ("The Audit Guy") Author & Lecturer

Meeting Details: The meeting will be held at the Shilo Inn, Richland, with check-in/networking at 5:30 p.m. chapter business and buffet dinner at 6, and the presentation at 7. Cost is \$17 for ASQ members, \$20 for non-members, or \$5 for just the presentation. Reservations are required and must be received by May 31. Send an email to prevette@owt.com with your name, phone number, member status and type of reservation, or call 373-9371. For more information about this meeting, the speaker and other ASQ activities: <http://www.asq614.org>.

NOTE: No-shows will be billed, if cancellation is not received at least 48 hours prior to the meeting start time.

Process-based audits specifically assess functions and linkages of processes and how they form systems. This approach takes a closer look at the fine details of a specific process and how they affect the success of the business. Process-based auditing is a tool that can help organizations identify opportunities for potential improvement. Process-based audits can be successfully conducted within any organization if certain requirements are met for establishing and managing an internal quality audit process.

Dennis will use a case study as he walks us through the steps for performing process-based auditing. Included will be some necessary requirements, tools and techniques for conducting a successful process-based quality audit:

- Benefits of process-based auditing as a management tool for continual improvement
- The seven steps for performing a process-based audit
- The three types of business processes and how they may be analyzed and improved
- The "Turtle Diagram" and how to apply this tool to a specific operational unit.

About the Presenter:

Dennis Arter has been an independent consultant since 1984. His primary service is instruction in the field of quality auditing. Dennis has served a wide variety of clients, including government, manufacturing, energy, chemicals, aerospace, food, software, agriculture, finance, medical devices, pharmaceuticals, and health care. Dennis is an ASQ Fellow, ASQ Certified Quality Auditor, and a licensed mechanical engineer, and has served on the ASQ Board of Director. His book, Quality Audits for Improved Performance, was first published by ASQ's Quality Press in 1989, revised in 1994, and revised again in 2002. The book has sold over 40,000 copies and is published in both Spanish and English.

BARRIER ANALYSIS The Gold Standard for Event Analysis

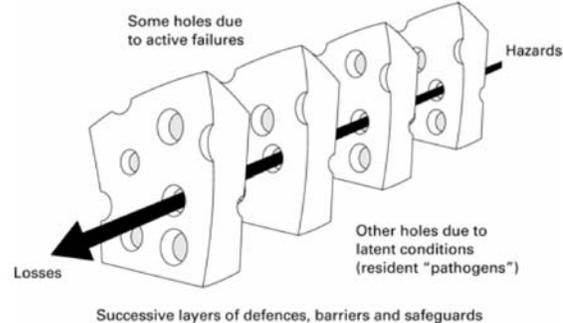
This article provides an introduction to barrier analysis, and is not intended to be a definitive thesis on the subject. You will need to do some research or serious training on barrier analysis to gain a full understanding of the topic, but this discussion will get you started.

Let me make two points. First, there is seldom, if ever, a single “root cause” for a complex event. A common definition of root cause is “the single cause, that if corrected, would prevent this event, and events with a similar root cause, from occurring again in the future.” While there is some value in defining a root cause, it leads to the false impression in some that the other contributing causes do not require the same attention. (“Danger, Will Robinson, Danger!”) In this article I discuss causes, period. My second point is that off-the-shelf causal analysis packages, such as TapRoot and Reason, do not perform analyses for you, they simply facilitate the process and help to organize and display the results. You cannot pour the facts into a funnel, turn the crank, and get a good causal analysis from these systems. You need to do exercise your analytical mind to connect the dots between what should have happened if everything had worked well and what actually happened when the proverbial feces struck the rotating elements of the portable ventilation unit.

Arguably, causal analysis tools fall into three general categories. The first group includes a selection of tools for analyzing simple events and production equipment, manufacturing and machine failures, and includes things like the “Why Staircase and Ishikawa diagrams (a.k.a. fishbones). The second group includes complex systems such as the Management Oversight and Risk Tree (MORT). The last group of tools include the “bread and butter” tools of the event/accident cause analyst, and include, among others, event & causal analysis (E&CF) charting, barrier analysis, and change analysis. The most powerful and effective tool for analyzing the causes of industrial accidents and undesirable events is the barrier analysis used in conjunction with E&CF charting and a questioning attitude. .

What is a barrier? Simply stated, a barrier either prevents or mitigates the consequences of an event. Barriers fall into three categories; passive, active and administrative. A passive barrier accomplishes its purpose by its physical existence, and requires no external action to operate. Examples of passive barriers include fire doors, radiation shielding, and guardrails. In contrast, active barriers rely on a stimulus to operate, and include such things as fire sprinkler systems, system interlocks, and alarm systems. Lastly, administrative barriers rely upon humans to operate. Examples include procedures, training, supervision, assessments, and communications.

A barrier model popularized by James Reason, is the “swiss cheese” model pictured below.



From James Reason's book, *Managing the Risks of Organizational Accidents*

Each barrier has unintended weaknesses, or holes – hence the similarity with Swiss cheese. These weaknesses are variable as the holes open and close at random. When a series of holes align, the hazard reaches the target and causes harm. The goal of a barrier analysis is to identify the barriers and the sizes, and often the durations, of the holes.

The challenge for the event analyst is to identify which barriers failed when, how, why, and to what extent. Additionally, the analyst needs to identify the barriers that could possibly have been used but were not. Understanding when, how, and to what extent barriers failed is fairly straightforward, but requires a good event timeline supported by personnel interviews, written statements, logbooks, electronic records, and procedure reviews. Understanding why the barriers failed is more complex, since the installation, maintenance and operation of barriers rely upon people behaving in an organizational safety culture defined by history, management expectations, and reward systems. Every organization is fraught with latent organizational weaknesses that allow the holes in barriers to exist. The key to an effective barrier analysis is to connect all the dots, identify causes that are within the organization's ability to correct, and then to develop and implement timely corrective actions to address the causes.

Events that occur in complex organizational systems seldom (dare I say “never?”) have a single cause or a single failed barrier. You cannot simply discipline or fire the proverbial bad apple and hope to prevent events from occurring. Someone once said, “If the identified causes of an event do not embarrass management, then the analysis did not go deep enough.”

- **Rich Higgins**

2007-2008 SECTION 614 LEADERSHIP TEAM

Section Chair and Publicity	Steve Prevette	Audit	Dave Sandoz
Vice Chair and Programs	Jo Haberstok	Division Liaison, Web Team Lead, Section Historian, and Examining	Dennis Arter
Secretary	Howard Rew		
Newsletter Editor and Treasurer	Rich Higgins	Certification/Recertification	Howard Rew

You can find out more about Section 614, including contact information for Leadership Team members, on our website at www.asq614.org.

If you are interested in helping with any of the Section teams, please contact the team lead or an officer. We are always looking for willing volunteers!

WEBSITES FOR OTHER ASQ SECTIONS

Seattle Section (#606): www.asq-seattle.org
 Spokane Section (#619): www.spokaneasq.org
 Southwest Washington – Vancouver Section (#627):
www.asqswwa.org
 Portland Section (#607): www.asqpdx.com

QUALITY QUOTE

“Great ambition is the passion of a great character. Those endowed with it may perform very good or very bad acts. All depends on the principles that direct them.”

- Napoleon Bonaparte

JOB POSTING

Senior QA/QC, Laboratory Operations

Advanced Technologies Laboratories International Inc. Richland, Washington

As a senior member of ATL's Quality Assurance team, this position works with and complements the efforts of the QA/QC Scientist and the QA Program Manager to support on-going development, implementation and monitoring of the Laboratory's quality assurance program, project specific quality assurance project plans, and implementing procedures. Together with the QA/QC Scientist, s/he will identify and implement initiatives to improve the quality of analytical results and reports produced by the Laboratory by conducting quality assessments and evaluating laboratory operations and processes in accordance with Department of Energy requirements. Responsibilities of the position include the review of analytical work instructions, sampling and analysis

plans, technical procedures, analytical control limits, and reports. The incumbent will also assist in coordinating accreditation/performance evaluation programs. S/he ensures that the Laboratory's quality system and supporting projects and procedures comply with appropriate requirements such as DOE orders and national/international standards based on client needs, and exercises stop work authority for conditions found to be detrimental to ethics, data quality, or contract compliance. This QA/QC resource may perform reviews for corrective action effectiveness and perform Quality Assurance Program assessments. S/he assists in responding to issues resulting from assessments and surveillances performed by ORP, state and federal regulatory agencies, and customer oversight organizations.

Minimum of a BS in chemistry, engineering or related technical discipline is required with at least 5 years experience working in a laboratory environment. A minimum of 5 years experience providing QA/QC support is required, including experience with accrediting programs such as AIHA, A2LA, NELAC, etc. An understanding of the requirements in DOE Order 414.1C and supporting implementation strategies is highly desired. The preferred candidate will have analytical and/or QA/QC experience in a nuclear facility environment and NQA-1 Lead Auditor Certification or NQA-1 certifiable experience/education.

ATL is a rapidly growing company with offices in Richland WA, New Mexico, Ohio, and headquarters in Maryland. ATL provides customer support in the areas of laboratory operations, health, safeguards and security, safety, environmental compliance and assessment, radiochemistry and radioanalysis, and information technologies. To learn more about ATL, please visit their website at www.atlintl.com.

Send resume and salary requirements to: droy@atlintl.com.
 Debra Roy -- 1979 Snyder St., Ste 130 Richland, WA 99354

ATL is an EEO/AA employer