

Please find below the meeting minutes concerning our recent ASQ Central Kentucky Section# 0921 - Membership Meeting at the Stone Heart Restaurant in Elizabethtown on Jan. 28th. Also attached is a copy of the ASQ presentation outlining an overview of the various ASQ certifications, benefits, body of knowledge, and other related topics for your reading enjoyment.

Purpose & Agenda:

- Introduction of guests and new & long-time members as part of our monthly ASQ membership meeting
- Review and discussion of ASQ certifications, benefits, body of knowledge, jobs & best fit, personal development through ASQ certifications, and other related topics
- Discussion & collection of feedback on how we can better serve our members

Participants:

Num.	Name	Company	E-mail Address	Additional Information
1	Kit Cross	Hendrickson	kitcross@hotmail.com	Guest and now new member as of 01/29/10
2	Dana Mattingly	Hendrickson	dmattingly@hendrickson-intl.com	
3	Diane Rogers	Maker's Mark	diane.rogers@makersmark.com	
4	Greg Talbert			
5	Patrick Dudley	Dow Corning	patrick.dudley@dowcorning.com	Treasury Chair
6	Walt Pozgay	Mitsuba	wspozgay@bellsouth.net	
7	Billy Copeland	Gates	BC6965@Gates.com	
8	Jeff Anderson	Gates	JA5791@Gates.com	
9	Allan Lirot	Gates	AL6173@Gates.com	Program Chair
10	Martin Hennig	BPE Consulting LLC	martin_h101@inbox.com	Section & Membership Chair

Special Items of Discussion:

- As part of this month's membership meeting we welcomed a guest to our section, Ms. Kit Cross, who is working as a co-op at Hendrickson and in the process of completing her BS in Industrial Engineering, Minor in Management, at Kettering University. Congratulations for your upcoming graduation. As an update, Kit Cross joined our ASQ section as of 01/29/10 and is interested in becoming certified as an ASQ Six-Sigma Green Belt. Please welcome Kit Cross as one of our new members to our ASQ section.
- In this month's meeting we reviewed the ASQ certifications, benefits, body of knowledge, and other related topics. For this, please also see the attached PDF-file with. As part of the presentation, we also discussed how ASQ certifications are supporting the required skills relevant for certain jobs in the Quality field, and how the ASQ certifications are also a great tool for personal development and career advancement. Hereby, it is not uncommon that individuals with the help of ASQ certifications, supported & encouraged by the organizations they work for, can advance in their career from hands-on shop floor experience into positions in Quality, Quality Engineering, and Quality Management. Key aspects to highlight are that ASQ certifications are highly recognized throughout various industries and are one of the most cost efficient training & certification solutions when considering a self & team study approach. Additional details can be obtained from the ASQ website at www.ASQ.org.

- In regards to the discussion of meeting topics of interest, we revisited the proposals / requests discussed back in December. With the overview of the ASQ certifications covered in this ASQ meeting, we will start at our next ASQ monthly meeting with an overview over Quality Tools & processes, such as APQP, PPAP, FMEA, Control Plan, etc.
- Our ASQ section website overhaul / development will be supported by Walt Pozgay. Walt volunteered to contact Shirl Furger at ASQ HQ for advice and assistance. Again, many thanks to Walt for volunteering to help us get our long overdue ASQ Central Kentucky website developed.

For our membership meetings and events, I'd like to encourage all of our members to join us as often as you can and thus utilize the benefit of networking with & learning from other quality professionals. In addition, as we welcome guests please feel free to invite your colleagues to our ASQ membership meetings or events, in particular if they have an interest in some of the topics of presentation or special events.



The Basics and Benefits of ASQ Certification

www.ASQ.org or call (800)-248-1946



What is ASQ Certification?

A formal recognition by ASQ that an individual has demonstrated a proficiency within, and comprehension of, a specified Body of Knowledge at a point in time

- Internationally accepted & recognized
- Recognition of excellence for 40 years
- Endorsed by over 125 corporations
- Marketplace requirement
- Peer recognition
- Personal validation



Key Benefits of Certification to Members

- **Gain new skills and upgrade proficiency**
- **Professional and personal pride**
- **Investment in career**
- **Mark of technical excellence**
- **Knowledgeable employees that are able to assure product/service quality**



Key Benefits of Certification to Organizations

- **Investment in the company's future**
 - **Perfect and share new techniques in the workplace**
 - **Discriminator in the marketplace**
-
- **Certification has been rated as one of the top-three valued benefits of ASQ membership since 1991**



History of Certification

- | | |
|---|-------------|
| ◆ Certified Quality Engineer | 1968 |
| ◆ Certified Quality Technician | 1970 |
| ◆ Certified Reliability Engineer | 1972 |
| ◆ Certified Mechanical Inspector | 1984 |
| ◆ Certified Quality Auditor | 1987 |
| ◆ Certified Quality Manager | 1995 |
| ◆ Certified Software Quality Engineer | 1996 |
| ◆ CQA-Hazard Analysis & Critical Control Point (HACCP) | 1999 |
| ◆ Certified Quality Improvement Associate | 2000 |



History of Certification

- | | |
|---|------|
| ◆ Six Sigma Black Belt | 2001 |
| ◆ CQA-Biomedical | 2002 |
| ◆ Certified Calibration Technician | 2003 |
| ◆ Certified HACCP Auditor | 2004 |
| ◆ Replaces CQA-HACCP | |
| ◆ Certified Quality Process Analyst | 2005 |
| ◆ Certified Biomedical Auditor | 2005 |
| ◆ Replaces CQA-Biomedical | |
| ◆ Certified Manager of Quality / Org. Mgmt. | 2006 |
| ◆ Certified Six Sigma Green Belt | 2006 |
| ◆ Cert. Pharmaceutical GMP Professional | 2009 |



Certifications Issued As of February 2009

◆ CQE	35,155
◆ CQA	32,456
◆ CQT	22,388
◆ CQI	12,681
◆ CMQ/OE	12,715
Total Certifications	143,402



Certification Programs

- **Quality Inspector (CQI)**

- **Hardware documentation, lab and calibration procedures, inspection, process performance, data collection and reports**

- I. TECHNICAL MATHEMATICS (16 Questions)

- II. METROLOGY (30 Questions)

- A. Common Gages & Measurement Instruments
- B. Special Gages and Applications
- C. Gage Selection, Handling, and Use
- D. Surface Plate Tools and Techniques
- E. Specialized Inspection Equipment
- F. Calibration
- G. Measurement System Analysis

- III. INSPECTION AND TEST (30 Questions)

- A. Geometric Dimensioning, Tolerancing, GD&T
- B. Sampling
- C. Inspection Planning and Procedures
- D. Testing Methods

- IV. QUALITY ASSURANCE (24 Questions)

- A. Basic Statistics and Applications
- B. Statistical Process Control (SPC)
- C. Quality Improvement
- D. Quality Tools and Techniques
- E. Resources



Certification Programs

- **Quality Technician (CQT)**

- **Quality problem analysis, inspection sampling plans, SPC applications**

- **I. QUALITY CONCEPTS AND TOOLS (20 Questions)**
 - A. Quality Concepts
 - B. Quality Tools
 - C. Team Functions
- **II. STATISTICAL TECHNIQUES (21 Questions)**
 - A. General Concepts
 - B. Calculations
 - C. Control Charts
- **III. METROLOGY AND CALIBRATION (19 Questions)**
 - A. Measurement and Test Equipment (M&TE)
 - B. Calibration
- **IV. INSPECTION AND TEST (21 Questions)**
 - A. Blueprint Reading and Interpretation
 - B. Inspection Concepts
 - C. Inspection Techniques and Processes
 - D. Sampling
- **V. QUALITY AUDITS (9 Questions)**
- **VI. PREVENTIVE & CORRECTIVE ACTION (10 Quest.)**



Certification Programs

• Quality Engineer (CQE)

– Principles of product and service quality evaluation & control

- I. Management and Leadership (15 Questions)
 - A. Quality Philosophies and Foundations
 - B. The Quality Management System (QMS)
 - C. ASQ Code of Ethics for Prof. Conduct
 - D. Leadership Principles and Techniques
 - E. Facilitation Principles and Techniques
 - F. Communication Skills
 - G. Customer Relations
 - H. Supplier Management
 - I. Barriers to Quality Improvement
- II. The Quality System (15 Questions)
 - A. Elements of the Quality System
 - B. Documentation of the Quality System
 - C. Quality Standards and Other Guidelines
 - D. Quality Audits
 - E. Cost of Quality (COQ)
 - F. Quality Training
- III. Product and Process Design (25 Questions)
 - A. Classification of Quality Characteristics
 - B. Design Inputs and Review
 - C. Technical Drawings and Specifications
 - D. Design Verification
 - E. Reliability and Maintainability
- IV. Product and Process Control (32 Questions)
 - A. Tools - B. Material Control
 - C. Acceptance Sampling
 - D. Measurement & Test - E. Metrology
 - F. Measurement System Analysis (MSA)
- V. Continuous Improvement (30 Questions)
- VI. Quantitative Methods and Tools (43 Questions)
 - A. Collecting, Sum. Data, & Distributions
 - B. Quantitative Concepts
 - C. Probability Distributions
 - D. Statistical Decision-Making
 - E. Relationships Between Variables
 - F. Statistical Process Control (SPC)
 - G. Process and Performance Capability
 - H. Design and Analysis of Experiments



Certification Programs

- **Quality Auditor (CQA)**

- **Standards & principles of auditing, questions, evaluations, reports for quality system adequacy**

- **I. AUDITING FUNDAMENTALS (30 QUESTIONS)**
 - A. Basic terms and concepts
 - B. Purpose of audits
 - C. Types of quality audits
 - D. Audit criteria
 - E. Roles & responsibilities
 - F. Ethical, legal, and professional Issues
- **II. AUDIT PROCESS (60 QUESTIONS)**
 - A. Audit preparation and planning
 - B. Audit performance
 - C. Audit reporting
 - D. Audit follow-up and closure
- **III. AUDITOR COMPETENCIES (23 QUESTIONS)**
 - A. Auditor characteristics
 - B. Resource management
 - C. Conflict resolution
 - D. Communication techniques
 - E. Interviewing techniques
 - F. Team, leadership, & facilitation
 - G. Presentation Techniques
 - H. Verification and Validation
- **IV. AUDIT PROGRAM & BUSINESS APPLICATIONS (15 Q.)**
 - A. Audit program management
 - B. Business applications
- **V. QUALITY TOOLS & TECHNIQUES (22 QUESTIONS)**
 - A. Fundamental quality control tools
 - B. Quality improvement tools
 - C. Descriptive statistics
 - D. Sampling methods
 - E. Process capability
 - F. Qualitative and quantitative analysis
 - G. Cost of quality



Certification Programs

- **Manager of Quality/Organizational Excellence (CMQ/OE)**
 - **Champions process improvement initiatives, supports strategic planning and deployment initiatives**
 - I. Leadership (25 Questions)
 - A. Organizational Structures and Culture
 - B. Leadership - C. Teams & Team Processes
 - D. ASQ Code of Ethics
 - II. Strategic Plan Development & Deployment (15 Q.)
 - A. Strategic Planning Models
 - B. Business Environment Analysis
 - C. Strategic Plan Deployment
 - III. Management Elements & Methods (32 Questions)
 - A. Management Skills and Abilities
 - B. Communication Skills and Abilities
 - C. Project Management
 - D. Quality System - E. Quality Models & Theories
 - IV. Quality Management Tools (28 Questions)
 - A. Problem-Solving Tools
 - B. Process Management
 - C. Measurement: Assessment and Metrics
 - V. Customer-Focused Organizations (20 Questions)
 - A. Customer Identification and Segmentation
 - B. Customer Relationship Management
 - VI. Supply Chain Management (15 Questions)
 - A. Supplier Selection
 - B. Supplier Communications
 - C. Supplier Performance
 - D. Supplier Improvement
 - E. Supplier Cert., Partnerships, and Alliances
 - F. Supplier Logistics
 - VII. Training and Development (15 Questions)
 - A. Training Plans
 - B. Needs Analysis
 - C. Training Materials / Curriculum
 - D. Training Effectiveness and Evaluation



Certification Programs

- **Quality Improvement Associate (CQIA)**

- **Basic knowledge of quality tools and their uses and involved in quality improvement projects**

- **I. Quality Basics (25 Questions)**

- **A. Terms, Concepts, and Principles**
 - **B. Benefits of Quality**
 - **C. Quality Philosophies**

- **II. Teams (25 Questions)**

- **A. Understanding Teams**
 - **B. Roles and Responsibilities**
 - **C. Team Formation and Group Dynamics**

- **III. Continuous Improvement (50 Questions)**

- **A. Incremental & Breakthrough Improvement**
 - **B. Improvement Cycles**
 - **C. Problem Solving Process**
 - **D. Improvement Tools**
 - **E. Customer-Supplier Relationships**



Certification Programs

- **Six Sigma Green Belt (CSSGB)**

- **A paraprofessional who works with process development, and documentation, collect and summarize data, creates and interprets multi-vari studies**

- I. Overview: Six Sigma and the Organization (15 Q.)
 - A. Six sigma and organizational goals
 - B. Lean principles in the organization
 - C. Design for Six Sigma (DFSS) in the organization
- II. Six Sigma – Define (25 Questions)
 - A. Process Management for Projects
 - B. Project management basics
 - C. Management and planning tools
 - D. Business results for projects
 - E. Team dynamics and performance
- III. Six Sigma – Measure (30 Questions)
 - A. Process analysis and documentation
- B. Probability and statistics
- C. Collecting and summarizing data
- D. Probability distributions
- E. Measurement system analysis
- F. Process capability and performance
- IV. Six Sigma – Analyze (15 Questions)
 - A. Exploratory data analysis
 - B. Hypothesis testing
- V. Six Sigma – Improve & Control (15 Q.)
 - A. Design of experiments (DOE)
 - B. Statistical process control (SPC)
 - C. Implement and validate solutions
 - D. Control plan



Certification Program Costs

Find the Certification that's right for you.

As of 01/26/2010

Certification	Fee*	ASQ Member Fee
Biomedical Auditor - CBA	\$390	\$240
Calibration Technician - CCT	\$335**	\$155
HACCP Auditor - CHA	\$390	\$240
Manager of Quality/Organizational Excellence - CMQ/OE	\$450	\$300
Pharmaceutical GMP Professional - CPGP	\$390	\$240
Quality Auditor - CQA	\$390	\$240
Quality Engineer - CQE	\$390	\$240
Quality Improvement Associate - CQIA	\$335	\$155
Quality Inspector - CQI	\$335	\$155
Quality Process Analyst - CQPA	\$335	\$155
Quality Technician - CQT	\$335	\$155
Reliability Engineer - CRE	\$390	\$240
Six Sigma Black Belt - CSSBB	\$420	\$270
Six Sigma Green Belt - CSSGB	\$335	\$185
Software Quality Engineer - CSQE	\$390	\$240



ASQ Certifications: Exam Development Process

Initial Activities

Preliminary Steps

- ◆ **Division comes forward with an idea for a certification program**
 - **Obtains from Certification Board approval of the concept**
 - **Conducts marketing study to determine potential market.**
 - **Contracts with outside measurement expert to conduct job analysis.**



Job Analysis Prep

- **Survey Developed with help from an Outside Measurement Expert**
 - **Literature Search & Subject Experts**
 - **Advisory Committee**
 - **Survey Review Panel**
- **Advisory Committee identifies**
 - **Typical job responsibilities (what people do on their job, criticality & frequency)**
 - **Knowledge base required (what people need to know to perform their job)**



***A Job Analysis Study
is conducted every five years
to ensure the validity of the
exam programs.***

- Survey mailed to 2000 individuals & summarized
- Approved sponsoring Division & Certification Board

***Job Analysis Results used to
develop Body of Knowledge***



BOK Development

- **Body of Knowledge Committee**
 - **Consists of about 12-15 subject matter experts**
 - **Two day workshop**
 - **Primary task is to translate the job analysis results into meaningful categories that can be tested.**

BOK Committee

determines # of questions in each area, based on importance of the topic as well as the depth of testable material



Item Writing & Review

- 20-25 subject matter **Writing** experts are trained in item writing
- Items written in each area of the Body of Knowledge
- 450+ items developed during 2-3 day session

- One 2-day **Review** workshop per year
- 12 subject matter experts review each question for:
 - Accuracy, Clarity
 - Appropriateness, Diversity



Exam Review

- 12 subject matter experts take each exam before formal administration
- Every item on exam is reviewed once more
- Flow of the entire exam is reviewed

***Over 50
volunteers
participate in the
development of
each exam***





ASQ Certification:

Volunteering via workshop

- **Item Writing (write exam questions)**
- **Item Review (review the questions)**
- **Exam Review (take the actual exam & score it before official administration)**

Selection Criteria for Volunteers

- Good team and communication skills
- Exam teams chosen with mix of new and experienced volunteers
- Not teaching/authoring exam review materials



Benefits of Volunteering

- 1 RU per day of workshop
- Expenses Reimbursed
- Visit ASQ HQ. Meet Certification staff
- Peer Networking
- Reinforce & expand subject knowledge
- Learn New Techniques from others
- To volunteer: Contact Certification Office at ASQ HQ at 1-800-248-1946
- Or contact Division Liaison responsible for specific exam



ASQ Recertification

Recertification verifies that you have maintained the same knowledge level you demonstrated when you originally passed the exam



Who Has to Recertify?

CMQ/OE

CQE

CQA

CRE

CSQE

CSSBB

CCT

CHA

CBA

It's Easier than you think!



Recertification Requirements

- **18 credits over three years**
- **Credits earned through:**
 - Employment
 - Professional Development
 - Education
 - Society Involvement



Only 18 RU credits needed over 3 year period

- **Employment**
- **Professional Development**
 - via Seminars, Workshops, Conferences
- **Instructor**
 - company internal instructing
 - college, university instructing
 - ASQ exam refresher course instructing
 - * any instructing must be above and beyond your regular job duties and requirements to qualify



***You only need 18 RU credits -
over 3 years!!***

- **Education**

- Company-sponsored in-house courses (computer skills, team building, etc.)
- University/college courses
- ASQ-sponsored courses

- **Society Involvement**

- Exam Proctor
- Meeting/workshop attendance
- Committee member
- Officer (national, division, section)



Just see how simple!!

Full-time employment **10.8RU**

AQC attendance (once) **3.0RU**

**Company-sponsored training
(e.g., project management,
Diversity in the Workplace)** **4.0RU**

Section Meetings (2 mtgs./yr.) **2.7RU**

20.5

For help: contact ASQ: www.ASQ.org or call (800)-248-1946



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