

*Inside This Issue...*

- *Message from Chair*
- *ASQ Coming Events*
- *Six Sigma and Small and Medium Sized Enterprise*
- *ASQ Certification Exam Dates*
- *ASQ Re-Certification Contact*



**Message From the Chair**

Our chapter has gone through a number of growing pains; last year was not our most successful. As a chapter we have had to regroup and rebuild.

One thing we have learned is that help and support is out there. That is the message that as an executive we need to deliver to our membership. This year we plan to get back to our monthly dinner meeting schedule. This time with the help of ASQ regional offices we have access to a border list of speakers. Our October meeting will feature Barbara Fisk. Barbara is the Chair of the Site Committee for the Annual Quality Congress, which is coming to Toronto next year. Also in the schedule are a number of open forum styles of meeting. This is already shaping up to be an exciting year.

As always we are looking for volunteers, from speakers to meeting coordinators and all point between. Articles for the newsletter are always welcome. Those people looking for re-certification credits involvement with the executive has its rewards.

**Stephen Earl**  
*Chair, ASQ Windsor Section 415*

**How to contact us?**

Tel: (519) 967-7748  
Fax: (519) 967-0748



**From the Editor** What the quality will do in 2003? Going back to basic quality principles? Six Sigma's still hot, warming up for new ISO/TS 16949? ASQ Windsor section held a Six Sigma seminar in last fall. "the flavor of month" was discussed by Speaker and audience. Six sigma does save a big money, costs a lot too! In this newsletter Mr. Arun Ghosh talked about "Six Sigma' and the Small and Medium Sized Enterprises". Six sigma is not magic. Are you ready for six sigma or is six sigma really for you?

ISO9000-1994 is going to be expired soon. Ready for the transition? Our corporate sponsor, Deloitte & Touche Quality Registrar Inc, will provide a training opportunity in June. See detail on Page 3.

We welcome articles and advertisements for future publications. Please feel free to contact the editor for any submissions, comments or questions regarding this newsletter at: [tedxyyang@yahoo.com](mailto:tedxyyang@yahoo.com)

**Ted X. Yang, CQE**  
*Newsletter Editor*



**ASQ Coming Events!**

**57th Annual Quality Congress**  
May 19-21, 2003 • Kansas City, Missouri

**ASQ's Healthcare Meeting**  
May 21, 2003 • Chicago, IL

**ASQ's Quality Institute on Six Sigma**  
June 9-11, 2003 • Dearborn, Michigan

**ASQ's 3rd Annual Six Sigma Forum Roundtable**  
September 11-12, 2003 • Hyatt Regency New Orleans, Louisiana

**11th National Quality Education Conference**  
November 6-9, 2003 • Albuquerque, New Mexico

**Second Business Excellence and Customer Satisfaction Conference**  
November 17-18, 2003 • Atlanta, Georgia

**ASQ's 4th Six Sigma Conference**  
February 2-3, 2004 • Phoenix, AZ

**58th Annual Quality Congress**  
May 24-26, 2004 • Toronto, Ontario, Canada

## *Six Sigma and the Small and Medium Sized Enterprises* - Arun K. Ghosh

### Introduction

'Six Sigma' is one of many programs that stimulates, promotes, and motivates quality and process thinking across every level of every operation of a business. The objective of a 'Six Sigma' program is to improve business performance, primarily through top management leadership and quality initiatives. Necessary resources for 'Six Sigma' are people, time, money, and patience.

The process is a highly disciplined one and its central idea is as follows:

*... if the number of defects in a process can be measured, they can be eliminated through a systematic methodology so that as close to zero defects as possible (3.4 defects per million) is achieved.*

While many larger organizations already have systems, resources, as well as established products, processes or services in place, small and medium sized enterprises (SME's) may share some serious limitations including cash flow, resource, as well as a possible lack of management discipline, commitment and long term business planning. Therefore the rigorous 'Six Sigma' approach may not be feasible for the SME on many levels.

This article will review the basic principles of quality management, present an overview of the 'Six Sigma' approach, and then suggest a simpler and more realistic two-phase approach for the SME.

### Basic Quality Management Principles

To a limited degree, the North American manufacturing and service industries have implemented -- and are presently practicing -- some of the basic quality management principles of Deming, Juran, Taguchi, as well as other leaders in the hopes of greater global competitiveness and improved quality

Despite these various programs and ideologies, there are still a considerable number of SME business owners and decision makers who have yet to be convinced of the benefits of the basic quality management concepts for reducing waste, improving productivity, quality and profitability.

### The General 'Six Sigma' Approach

For implementation of the 'Six Sigma' strategy, serious commitment and support from senior level executives are essential.

Upper level management needs to approach 'Six Sigma' as an integral part of its strategic business planning. Several factors are key to the success of this program: selecting the appropriate projects, identifying the necessary training, and appointing the right people.

Project selection is based on one or more of the following: priority, return of investment, customer/market needs, human and financial resources. The width and depth of training e.g., Black Belts, Master Black Belts, etc, is also critical. Since statistical tools and techniques are extensively used and team players are crucial, human resources play an integral role. Resource allocation (people, time, equipment, etc.) and initial dollar investment in each 'Six Sigma' project are considerable.

It is important to note that day-to-day fire fighting issues are normally not included in the 'Six Sigma' program. The projects are not 'quick fix' and time and patience are required to reap the benefits. In the long term, improvement can be measured by better quality products and services, faster and cheaper production, and, of course, the bottom line.

With respect to the SME, any number of resources may not be readily available for the 'Six Sigma' approach to succeed. SME resources are more typically allocated to business development and the steep learning curve of their particular product or service, leaving little for an extensive 'Six Sigma' program. Quality and productivity, however, are no less important for the SME than they are for the larger, more established company. Therefore, a more realistic two-phase program is suggested, tailored specifically to the needs and abilities of the SME.

### The Two-Phase Program

Rather than blindly jumping onto the 'Six Sigma' bandwagon, a two-phase progressive approach is suggested for the SME. While not as extensive as the 'Six Sigma' approach, the two-phase structures a quality and productivity improvement framework that is both practical and achievable for the SME.

The purpose of the first two phases is to embed quality and process thinking across every level in the organization. If implemented

successfully, substantial improvement will be generated in the business processes, customer satisfaction and bottom line benefits. It will also set the motion for continuous improvement in small and medium sized organizations.

In *Phase I*, all employees need to understand the attributes in the product that are most important to the customer, possible defects in the product, and the variation the customer sees and feels. The first step, therefore, should focus on reducing process variation. The program may be started with a small budget for training and statistical technique application. The time frame may vary from one to three years.

The following tasks should be carried out involving employees throughout the organization:

- detection of variations in the process
- elimination of 'special cause' variation
- stabilization of the process with the existing system
- determination of process capability, i.e., what the process can deliver

*Phase I* will generate statistical thinking in the organization and also eliminate the need for inspection on a mass basis. Management should consider moving into the next phase only after *Phase I* is successfully executed.

The primary objective of *Phase II* is to have a documented and certified global quality management system that will drive continuous improvement in business processes. The ISO 9001:2000 International Standard emphasizes management involvement and support, personnel training, PDCA, statistical tools and techniques, and customer satisfaction. *Phase II* involves documentation, implementation and certification to ISO 9001:2000 and can be achieved within a eight to fifteen month time frame.

### Is Six Sigma for Everybody?

The following chart examines what SME's can achieve through *Phases I* and *II*. This can be used to identify what is appropriate for a given SME. (See TABLE 1).

While *Phases I* and *II* can be achieved in most cases with existing resources and minimum additional dollar investment, the 'Six Sigma' program calls for considerable resource allocation, dollar and time investment which may pose a constraint for small and medium sized organizations. Whether a small, medium, or large company, such a program can only be justified if it will add substantial value to the company's business processes and the final products or services.

### Conclusion

In conclusion, a review of the 'Six Sigma' approach along with a brief overview of other quality and productivity programs suggests that, for a small or medium-sized enterprise, the required resources for a successful program may be insufficient. Therefore, it is important for SME managers to assess the value of these programs along with the two-phase program suggested in this article to determine the best approach for their specific enterprise.

TABLE I.

Criteria	Six Sigma	Phase I	Phase II
Disciplined quantitative approach	VH	M/H	M/H
Sophistication of the business (Aerospace/Electronic vs Automotive)	H	M/L	M/L
Reduction in variation	(+/-6sigma)	(+/-3sigma)	(+/-4 sigma)
Depth & Levels of Training	V.H	L/M	L/M
Training Cost	VH	L/M	L/M
Implementation (Time, Cost, Resources)	V.H	L/M	L/M
Customer satisfaction	VH	M	H
Process Approach	H	M/H	H
Management focus on people	VH	H	VH
Continuous Improvement	VH	H	H

**Arun K. Ghosh**, President, established AKG Associates in 1990 as a consultancy specializing in quality and productivity. The Company was incorporated in the Province of Ontario, Canada in 1995 and in the state of Michigan, USA in 1996.

He received his BE degree in Metallurgical Engineering from the University of Calcutta, India and MS degree from the University of Manchester Institute of Science and Technology, U.K.

Arun has over 30 years of national and international experience and expertise in manufacturing and metallurgical industries and held many executive and senior management positions. He has presented papers in technical conferences both in the USA and Canada and published papers in refereed journals; he also contributed to 'Industrial Engineering Handbook' published by the American Foundry Society. He has closely worked with over 150 organizations in North America and abroad on consulting and training assignments related to quality and productivity management.

He is a licensed Professional Engineer, Province of Ontario, Canada; an active member of the American Society for Quality, American Foundry Society, American Society for Metals and a life member of the Indian Institute of Metals.

# Deloitte & Touche

## Transition Training: ISO 9000-1994 to ISO 9001:2000

### One (1) Day, Friday, June 27, 2003, Windsor

This one-day course is designed to give participants a clear understanding of the requirements of ISO 9001:2000 and highlight the changes needed for an organization to upgrade to the new Standard. This course will cover the Why? What? How? and When? Comparison of the two standards by applicable section, Organization of the ISO 9001:2000, Effects on other documents, Major changes in the standard, Important additions, Continuous improvement model, Customer focus requirements, Continuous improvement requirements, Need for competency and awareness, Design and development from a process perspective, Understanding the business as a process, What changes are necessary to the procedures, work instructions and forms.

\$299.00 plus g.s.t.

Fee Includes:

Student Workbook, refreshments and lunch.

*payable in Canadian funds*

This course will be hosted by our corporate offices:

Deloitte & Touche  
Quality Registrar Inc.  
150 Ouellette Place  
Suite 200  
Windsor, ON  
**8:30 am – 4:30 pm**

**For information or to Register:  
Irene Seetner**

**Toll Free 877 435 9001**

**[iseetner@deloitte.ca](mailto:iseetner@deloitte.ca)**

## Congress in Canada - 2004

An Overview of 2004 ASQ Annual Quality Congress (AQC) in Toronto

**Presented by:** Barbara Fisk, Chair of the Site Committee for AQC

**When:** October 16th, Thursday, 2003

**Venue:** TBD

## CERTIFICATION

### ASQ Certification Exam Dates

CERTIFICATION	EXAM DATE	APPLICAION DEADLINE
	December 6, 2003	October 3, 2003
CQE & CQA	June 5, 2004	April 2, 2004
	December 4, 2004	October 1, 2004
CQMgr. , CRE, CQT, CMI , Six Sigma Black Belt	October 18, 2003	August 22, 2003
	March 6, 2004	January 9, 2004
	October 16, 2004	August 20, 2004

### ASQ Re-Certification Contact:

Please send your Re-certification Journals to:

**Tony Maria**

**Lead Assessor**

**Deloitte & Touche Quality Registrar, Inc.**

**150 Ouellette Place, Suite 200**

**Windsor, Ontario N8X 1L9**

E-Mail: [tmaria@deloitte.ca](mailto:tmaria@deloitte.ca)

Phone: (519) 967-7748

Fax: (519) 967-0748

Admin.: (888)258-2240 x761



ASQ Customer Service:

Pone: 800-248-1946

Email: [cs@asq.org](mailto:cs@asq.org)

Fax: 414-272-1734

NEWSLETTER EDITOR: TED X. YANG

We welcome articles and advertisements for future publications. Please feel free to contact the editor for any submissions, comments or questions regarding this newsletter at: [tedxyyang@yahoo.com](mailto:tedxyyang@yahoo.com)

### ASQ Windsor Section 415

#### Executive Committee Contact Listing

##### **Chair:**

Stephen Earl, The NARMCO Group  
519-969-3351 / Ext:253, [searl@narmco.com](mailto:searl@narmco.com)

##### **Vice-Chair:**

Dan Biafore, Quality Associates Int'l, Inc.  
313-475-5676, [dbiafore@quality-one.com](mailto:dbiafore@quality-one.com)

##### **Auditing Chair:**

Arun Ghosh, AKG Associates  
519-735-5641, [akg@mnsi.net](mailto:akg@mnsi.net)

##### **Examining Chair:**

Lee Dawson, Quality Associates Int'l, Inc.  
313-475-5674, [ldawson@quality-one.com](mailto:ldawson@quality-one.com)

##### **Chair-Elect**

(open)

##### **Secretary / Web Page:**

(open)

##### **Treasurer:**

Dawn Ostrow, The NARMCO Group  
519-969-3351 / Ext:228, [qc.national@narmco.com](mailto:qc.national@narmco.com)

##### **Past Chair:**

Dan Biafore, Quality Associates Int'l, Inc.  
313-475-5676, [dbiafore@quality-one.com](mailto:dbiafore@quality-one.com)

##### **Membership / Certification Chair:**

Anthony Maria, PEng, CQMgr, CQE, CQA, SSBB  
Deloitte & Touche Quality Registrar, Inc.  
519-967-7748, [tmaria@deloitte.ca](mailto:tmaria@deloitte.ca)

##### **Program Chair:**

(Open)

##### **Education Chair:**

Joan Grimwood, CQE, Nemark Canada Corporation  
519-250-2579, [jgrimwoo@nemark.com](mailto:jgrimwoo@nemark.com).

##### **Newsletter Editor:**

Ted X. Yang, CQE, The NARMCO Group  
519-969-3351 / Ext.371, [tedxyyang@yahoo.com](mailto:tedxyyang@yahoo.com)

##### **At Large:**

Rick Forget, 313-477-2752, [rforget@quality-one.com](mailto:rforget@quality-one.com)  
Joseph Solly, 519-967-7772, [jsolly@deloitte.ca](mailto:jsolly@deloitte.ca)

##### **Students Representative:**

Frank Vyskocil, 519-972-9447,  
[king\\_j\\_version@hotmail.com](mailto:king_j_version@hotmail.com)