

Quality Management System Strategies – The On-going Journey

a report by

Lou Ann Lathrop

Chair-Elect, Automotive Division, American Society for Quality (ASQ)

Quality system standards are all about preparation and execution. For those already certified and who have a robust quality system already in place, this information is not new. When looking at the standards regarding quality systems, rather than focusing on the minor details and producing a line-by-line interpretation, the larger picture should be taken into consideration. The intent and the specific parts of the standard should be examined and compared with your organisation's current position and where you would like it to be. Gaps should be prioritised and this new standard should be used as a rallying point for something that should already be in progress, regardless of having to pass the certification requirements.

Using the certification process as part of a goal achievement, ensure that the major business opportunities for the company are being addressed. As the International Organization for Standardization (ISO) Standard 9001:2000 states in Section 1:

“The adoption of a quality management system should be a strategic decision of an organization. The design and implementation of an organization's quality management system is influenced by varying needs, particular objectives, the products provided, the processes employed and the size and structure of the organization.”

A company's personnel know what these needs are and, if the right examples are set and if staff can see that management is addressing the more complicated issues, the results could prove to be surprising.

ISO 9001:2000 and ISO Technical Specification (ISO/TS) 16969:2002 are easy to read and are especially beneficial to those not fluent in quality systems jargon and those who have not delved deeply into such topics as calibration, quality records, traceability, etc. The previous ISO 9000:1994 and QS-9000 standards have very prescriptive elements on aspects that should be present in a robust quality system, but the documents are more like a list of parts as opposed to a working model.

The new standards endeavour to present a working model and suggest that process models should be

used to understand how the different processes in a business operate. Using the old standards, some companies managed to avoid applying them across their entire business models, while other companies applied them across their entire business enterprise. Those that did apply across the entire enterprise, if they did so robustly, will not find it difficult to meet the new standards.

The new standards take high-level process flows and look at the processes in the business. Those who experience difficulties in visualising a virtual system will have a hard time when they cannot 'see' what actually needs to be implemented or audited.

The US Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, published 1 November 2000, is helping to rectify past mistakes regarding data and document control and, in particular, quality records.

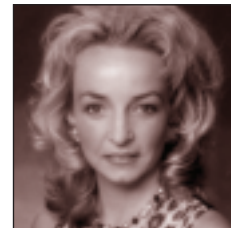
As stated in Section 1 of ISO 9001:2000:

“The quality management principles stated in ISO 9000 and ISO 9004 have been taken into consideration during the development of this International Standard.”

The new standards are evolving to be more general and, at the same time, to re-teach some of the basic quality engineering or systems engineering principles that were taught by people such as W Edwards Deming and including the entire Six Sigma™ initiative that has been occurring in recent years. The latest gurus will claim that it is not just about quality, but business results. These business results include the balanced model of quality, delivery and cost.

Applying ISO/TS 16969:2002 is not the easy way to solve a problem, but what the standard contains is a matter of common sense and the necessary considerations for businesses that intend to remain in business for the long term.

The previous standards comprised 20 elements. The new standards consist of the following five major



Lou Ann Lathrop is Chair-Elect of the American Society for Quality's (ASQ's) Automotive Division. She has worked for General Motors (GM) for more than 19 years in the areas of quality engineering, manufacturing engineering, manufacturing and, in her current capacity, as Engineering Group Manager, Engine Vehicle Validation, GM Powertrain. Ms Lathrop received her BSc and MSc degrees in Electrical Engineering from Marquette University, Milwaukee, Wisconsin, in 1984 and 1989, respectively.

sections with some introductory sections:

1. Quality Management System (Section 4.1), which includes Documentation Requirements (Section 4.2);
2. Management Responsibility (Section 5);
3. Resource Management (Section 6);
4. Product Realization (Section 7); and
5. Measurement, Analysis and Improvement (Section 8).

There is a wealth of published information available on each of these sections. These new standards incorporate all of the lessons learned from using quality methods in the automotive industry over the last 20 to 30 years. Utilisation of the depth of methods and best practices embodied in these standards is a sure route to success.

The following steps need to be followed to achieve a good integrated system:

- educate yourself as a leader;
- read the standard and identify the weaknesses in your system;
- delve deeply into the details;
- use in-house experts (especially those that have implemented and have functioning examples of

having robust business systems that exemplify what is necessary);

- involve everyone in the process of improving your business; and
- follow up on action items.

In order to translate these procedures, the following sections of the standard are critical to the success of any organisation:

- Section 5.1– Management Commitment;
- Section 5.2 – Customer Focus;
- Section 5.3 – Quality Policy;
- Section 5.4 – Planning;
- Section 8.5.1 – Continual Improvement;
- Section 8.5.2 – Corrective Action; and
- Section 8.5.3 – Preventative Action.

Nothing contained within the standard is there by accident, nor is it there to create extra work. It is there because there have been hard lessons learned by different people in the industry. As previously stated, what will be new for your organisation or what will cause concern in the new standard is dependent on where you are as an organisation in general. The new standard is definitely updated by implementing the lessons learned over the last decades of quality system implementation. ■



Competitor intelligence for automotive professionals

- Same-day Analysis provides comprehensive & systematic coverage of key players and markets
- Competitor intelligence
 - 55 vehicle manufacturer profiles
 - 100 component manufacturer profiles
- In-depth market trend analysis through regular special reports
- Country reports
 - 53 countries representing 96% of global vehicle sales and 99% of global vehicle production
- Three-year sales and production forecasts
- Historical sales & production data going back to 1990
- **European Automotive Productivity Index 2003** available from July

Find out why eight out of the world's 10 largest companies* as well as more than 300 multinationals, governments, financial institutions and consultancies subscribe to World Markets Analysis.

**As ranked by Fortune Global 500*

Visit www.wmrc.com today and apply for a trial or email analysis@wmrc.com.

Intelligence delivered by



World Markets Research Centre

a division of WMRC plc

■ London

■ Boston

■ Singapore