

Quality - A must in all walks of life

A-3, Udyog Sadan No. 3, Central Road, M.I.D.C., Andheri (East), Mumbai - 400 093

Phone: +91 9869354407, 9324294168 E-Mail: info@qualityforumofindia.org Website: www.qualityforumofindia.org

Vol I: No. I: July 2007

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Managing Committee Chairman's Message

Welcome aboard!!



On the happy inauguration of Newsletter of the fraternity of Quality Forum, I deem it a privilege to write this welcome Message.

Nearly two years ago, some of us in the business of quality management systems felt it necessary to shift the focus a little away from the mundane aspects of business. In the intensive and competitive world, somewhere along the line, we recognized, the Customer was given the short shrift. The formation of regulatory mechanism, TRAI, is/was a consequence. The Public sectors, whose role in the developing economy in India is

overwhelming, in particular, suffer from an image "deficiency". We also recognize, 250 million Indians constitute the biggest Customer group, a population large than most countries. Servicing this large young population, will become a challenge.

This group with many ardent supporters, believed the "Customer is the King," philosophy, or Gandhigiri if you will, need to brought back to center-stage. In this decade, we perceive, the service sector will become the major contributor for India's GDP growth.

In recognition of this reality, we have already commenced the mission, to improve the Customer interface program in Public Sector group. Sensitizing program for Senior Executives of MTNL, Mumbai, held recently met with success. More are scheduled.

We are not in the business of making money, this is a non profit organization. Our mission is to sensitize organizations to Customers, create a proper ambiance. This we hope to Quality forum e-News Editor achieve through Seminars, Workshops.

Mr. P. H. BHAVE On behalf of the Managing Committee, I welcome you to participate in this organization mission, in developing the Spirit of Excellence. A service with a Rose in your hand, a benevolent smile on your face and a large expansive Heart.

From the Editor's Desk

Dear Reader.

This newsletter is a small beginning by us in the Quality Forum to communicate with the quality fraternity.

We are happy to have an interview of The Secretary General, Quality Council of India (QCI) for the first issue. The interview succinctly highlights salient activities of the QCI. We also have two short articles. One deals with the importance of having a well defined measurement assurance system and another gives tips on lighting and energy conservation in the work place.

In our future issues, we intend to provide you with interesting articles on systems and process improvement, reviews of books/web sites, interviews with prominent quality specialists and activities of the Quality Forum. Your suggestions/feedback is welcome.

P.H. Bhave : phbhave@gmail.com

All QF members are being issued a photo ID card. If you have not received yours, please get in touch with the Secretary.

If you have any friends in the erstwhile SEI Mumbai section who are yet to become Quality Forum member, do remind them to send their details along with a photograph to the Secretary, Quality Forum.

CONTACT US: Secretary **B. BHATTACHARYA** K-202, Lok Darshan, Military Road, Andheri East, Mumbai - 400 059, India. Mobile: 9869354407 Phone: [022] 28594848 F-Mail: basudev@vsnl.com

QUALITY FORUM: Regd. No. 295/2006 under Societies Regn. Act 1860 and No. F 31079 under Bombay Public Trusts Act 1950



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Interview with Shri Girdhar J Gyani, Secretary General, Quality Council of India (QCI)



QCI is the apex organization of the country mandated to provide National Accreditation structure. Quality Forum interviewed Shri Girdhar Gyani, Sec. General QCI, to learn from him about the achievements & future directions of QCI. It was heartening to learn about the significant milestones achieved by QCI in such a short time. The interview was conducted on 12 April 2007.

QF: Shri Gyani, Please tell us about the genesis of QCI.

Shri Gyani: QCI is set up as an autonomous body under joint initiative by Government of India and Indian industry associations represented by ASSOCHAM, CII, FICCI, under a cabinet decision taken on Feb 9, 1996. It is governed by a 31 member council comprising stake holders drawn from government, consumers and industry associations. Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry is the nodal Ministry for QCI.

It has the following objectives.

- 1. Establish & maintain the accreditation structure in the country.
- 2. Provide right & unbiased information on Quality & related standards.
- 3. Spread quality movements in India.
- 4. Represent India's interest in international forums.

QF: How have we fared in the global context?

Shri Gyani: In my opinion, we have done very well. We are at par with most of the developed countries in terms of accreditation structure. NABCB board of QCI is MLA signatory with International Accreditation Forum (IAF) for Quality Management Systems. Similarly NABL is MRA signatory with International Laboratory Accreditation Cooperation (ILAC). We shall similarly get into MLA for Product certification & Inspection.

QF: What will be the advantages from MLA status?

Shri Gyani: MLA basically provides you the equivalence. Certificates issued under MLA accreditation get accepted world over, facilitating international trade. QCI accredited bodies need not go for multiple accreditation. It saves cost for the certification body as well as the client. It is for this reason that number of accredited CBs by QCI has gone up from 6 to 32, over past 3 years! Further due to our MLA status, overseas accreditation bodies like UKAS, JAB & ANAB are relying on QCI to look after their accreditation activities in India!

QF: There is some dissatisfaction about the unprofessional way in which some certification bodies have been operating --

Shri Gyani: QCI is aware of this issue. We are the first accreditation body to have carried out field validation on certified units. The results show large variation in practices of various certification bodies. NABCB has even suspended some CBs on this account. We have in place a comprehensive surveillance mechanism to improve credibility in QMS certification. We have provided details of these initiatives on our web site for awareness among all stake holders.

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QF: Gyaniji, you have been at the helm of QCI now for 3 years. Which are the impact making actions of QCI in this period?

Shri Gyani: I will rate our initiatives in improving quality in public services & in health sector at the top. We have a standard on quality of public services, released by BIS (IS: 15700). It is modeled on the charter mark scheme of U.K. The Prime Minister's Office has in fact driven this effort. Following services have been identified for compliance of the Standard in first phase; Freight & ticketing services of railways, Income Tax, Passport, Post, Excise, CBSE, Food processing, EPF, Pensions. DARPG (Dept of Administrative Reforms & Public Grievances) is monitoring the implementation. QCI has accredited training programs on this Standard to help the identified departments to implement the Standard. QCI is also designated as accrediting body for certification bodies for this project. In time to come, compliance of this Standard will benefit citizen & society at large.

As you may be aware, QCI has constituted exclusive board for accreditation of hospitals. This will trigger quality culture in the health industry. Besides, patient safety will be at centre stage. Already 6 hospitals have received accreditation & 32 are undergoing assessment at different stages. In near future, I expect insurance companies & empaneling agencies like CGHS shall rely on accreditation. QCI is already evaluating hospitals for CGHS as per existing criteria, which in time to come may get linked to accreditation.

QF: Gyaniji,I must compliment you on these path breaking steps. It speaks for the synergy you have been able to establish with peers & experts in the country. Your secretariat has a strength of only 20 personnel; a truly lean organization. How do you plan to sustain these initiatives?

Shri Gyani: I believe that quality is best driven by the consumer. QCI as such is putting emphasis on empowering consumers through National Quality Campaign. In this we are looking forward to organizations like Quality Forum to network & promote quality in all walks of life. QCI will be encouraging all such initiatives.

MEASUREMENT MANAGEMENT SYSTEM IN QUALITY CONTROL & OUALITY ASSURANCE

by B. BHATTACHARYA, SYSTEMS & TRAINING, MUMBAI

1. Introduction

A consignment of piston pin valued at US\$ 100,000 exported from India to an Indonesian auto plant was rejected after the pins were found to be undersized. The Indian manufacturer had actually checked the product, both at production stage as well as at final packing stage & had found the pins meeting buyer's specification. Details of the measurement data supported the exporter's claim. The Indonesian buyer produced their measurement data, which was backed by a well laid measurement management system. The Indian manufacturer on the other hand could not even identify the measuring instrument, amongst a host of others, which was actually used for the measurement. The dispute when referred to an International Arbitrator was decided in favor of the Indonesian buyer because of acceptance of their data since it was the outcome of a demonstrated measurement management system.

2. What is Measurement Management System?

Measurement management system is the set of interrelated or interacting elements



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necessary to achieve metrological confirmation & continual control of measurement processes

3. Why is it needed?

Researches in developed countries have estimated that industry average for the cost of quality or rather the cost of poor quality is 20 to 30 % of the turnover. Scenario in the developing countries is likely to be worse. Cost of quality is the amount of money a business loses because its product was not done right in the first place.

In a manufacturing industry, measurement data is one of the most important inputs in decision-making. Right from the design stage, the manufacturer starts making measurement with design validation. Thereafter, measurements are made to check the incoming material, followed by checking of critical parameters during in-process & assembly. Finally, measurements are again performed to assure the quality of the outgoing product.

Measurement data is also a critical input in decision-making for repair & maintenance activities. The repair process starts with measurements made to assess the extent of damage to the component or the product. Other stages of measurements follow the pattern of a manufacturing set-up. Finally, measurements are again performed to assure the quality of the repaired component.

At each of these stages, the data generated through measurements is analyzed & compared with requirements so that appropriate decisions can be taken. These decisions pertain to acceptance, rejection, segregation or rework. Thus, in organizations engaged in manufacturing, repair & maintenance, all quality related decisions are based on the data generated by measurement.

However, unless the measurement data is reliable, decisions based on such data cannot be reliable, & incorrect decisions contribute largely to delays & cost escalation.

4. What needs to be done?

Specified measurement requirements are derived from requirements for the product & may be expressed as maximum permissible value, minimum value or a range. The process of measurement & its inherent variation are, however, not specified in the metrological requirements & have to be determined & laid down by the organization. It is, therefore, necessary to understand the measurement process variations, identify the factors giving rise to these variations, & introduce measures in the existing measurement process for minimizing these.

Thus to control quality of manufacturing processes & the product, & to assure its sustenance, it is necessary to lay down & implement an appropriate measurement management system.

LIGHTING - QUALITY & CONSERVATION

by A. AUDDY, MEMBER - QUALITY FORUM, amalauddy@hotmail.com

"TAMASO MA JYOTIRGAMAYA": (Take us from darkness to light)

Man has been on an eternal quest of moving from darkness to light. From the first caveman accidentally discovering fire to Thomas A. Edison's invention of light bulb in 1885, has been a long journey, Technological inventions in production of electrical energy and its application for lighting have transformed the human civilization.



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However, it is important to use discrimination in selection & use of light sources to achieve, visual comfort as well as energy conservation.

In the first part of this article, it is attempted to give some tips and guidance on these issues.

(a) First of all let us know about some of the important basic units referred in the Lighting System .

Luminous flux	Unit: Lumens(Im)	Quantity of light/second
Luminous intensity	Unit: candela (cd)	Intensity of luminous flux in a certain direction
Illuminance (Lux)	Unit: lumens/sq.m	Luminous flux/sq. unit of area
Luminance (L)	Unit: cd/sq.m	Luminous intensity/sq. unit of apparent area

(b) While designing the lighting systems, we should be aware of the following aspects.

The uniformity ratio (i.e.) ratio of minimum to average illuminance over the task area should normally not less than 0.8 in the indoor and 0.2 to 0.4 in the outdoor area.

The standard service illumination of the general surrounding area of a working interior (i.e. those other than general task area) should not be less than one third of the task illuminance..

Directional effect of lighting should be avoided.

Choice of the proper Reflectivity of Ceilings, walls and floors is necessary to optimize the lighting system.

Glare should be eliminated by by proper shielding, use of blinds/color schemes/contrasts.

Flicker to be avoided by timely maintenance of tube lights and stroboscopic effects to be eliminated by use of phase shift circuits with the chokes.

While working out an energy conservation plan, the following points may be considered:

Maintenance: plays a very important role towards reducing wastages and improvements in the lighting levels after a lapse of time.

Use of power factor improvement capacitors for proper utilization of energy and also for cooler operation of wires/cables. This also reduces the line current to up to 30-40% of the lamp current and the starting currents – reducing cable sizes and maximum KVA demand and penalties imposed on low power factor power systems.

Consider following replacements.

- 1) Inductive ballast by electronic ballast-Lamp life improves by 30%, Energy saving 30%, No starters and power factor also improves.
- 2) Incandescent lamp by CFL—Lamp life is 8 times, 5 Energy saving is 80%
- 3) Tubular filament lamp of 40w/36w. by high lumen output lamp like T5.-Energy saving of 25 to 35%
- 4) HPMV (High pressure mercury vapor)lamp by HPSV (sodium vapor) or metal halide lamp-Energy saving of the order of 25 to 40%.

Incorporate the optical unit with the lamp. Save another 30-50% based on location of the light unit.

Make use of direct lighting, as far as possible, instead of indirect lighting system, when we

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can save a whopping 50%.energy.

- o In case of three-phase loads, balance the loads on all the three phases.
- o For outdoor lighting, go in for reduction in the lighting levels, without dark spots. The lighting level is on full brightness for say 3 hours, for the eye to adapt to the dusk light and the traffic. After the stipulated 3 hours, the lighting levels are lowered by 50-60% by reducing the light output of each and every lamp, by saving over 30-50%.
- Similar ;methods as above may be implemented at locations where movement of the personnel is least. Further, for other areas, the reduction in lighting levels may be brought down in 2 and 3 levels (say 80% and 50% of the existing lighting levels) depending on time of the day.

All the above measures are feasible and result in cost recovery in limited time span.

Forthcoming events:

- A one-day Seminar on "Simple Techniques on Reliability Evaluation" is being organized at ERTL (West) in the last week of August 2007. This is jointly organized by Quality Forum and ERTL (West) and would be conducted by faculty from IIT, Mumbai and ERTL (West)
- A half-day Seminar would be conducted by Quality Forum for BSNL, Maintenance group, Mumbai at Prabhadevi on 13 July 2007. The topic is "Understanding Quality and Implementing its Important Elements".
- A repeat program on the same topic would be conducted for senior management of MTNL on 21 July 2007. The first program was conducted on 28 April 2007, which was very well received. The venue is Centre for Excellence in Telecom Technology Management (CETTM) in Hiranandani Gardens.

Humor in the corner

The US computer giant IBM had decided to have some parts manufactured in Japan as a trial project. In the specifications, they set out that they will accept three defective parts per 10,000.

When the delivery came in there was an accompanying letter which said "We, Japanese people, had a hard time understanding North American business practices. But the three defective parts per 10,000 have been separately manufactured and have been included in the consignment. Hope this pleases you."



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