Quality – Beyond Compliance

(If you don’t measure it, you can’t manage it)

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The Global Regulatory Paradox

CORPORATIONS OWN THE GOVERNMENT!

THEY NEED TO BE REGULATED.

BY WHOM?

THE GOVERNMENT!

The Paradox of Regulation
What Regulation Can Achieve and What It Cannot
Flora Halnes

Society bound up in red tape
Oil refinery disaster
Economy in freefall
The Nanny State
Contradictory messages and its impact on regulation
Silo Management tends to...

- Reduce effective communication across companies
- Result in multiple (duplicate) systems created in isolation within the same company
- For example: SMS Assurance, Repair Station Quality, Flight operations Quality
Regulatory structure often...

• Results in ambiguous or conflicting interests in control of any “independent” quality oversight
For example...

- EASA OR (Organization Requirements)
- EASA Part 145 “Management System”
- FAR 119.65 Management Personnel for Part 121 does not specifically mention a QAM they speak of a Chief Inspector
In Canada CAR’s say...

The person responsible for maintenance shall establish an audit system in respect of the quality assurance program

• Shall establish and maintain a quality assurance program that

• (a) is under the sole control of the person responsible for the maintenance control system

CAR 705
EASA 145.A.65 Management system

• 145.A.65

  a function to monitor (audit)
  compliance of the organisation...

  a feedback system of findings...

  ensure effective implementation of corrective actions as necessary

  focus on integrity of the management system,
  periodically assess the status of safety risk controls
Recognizing Quality Performance

- Mutually beneficial relationship
- Participation
- Fact-based decision making (Data-driven)
- Quality is a “habit” in the company
- Shared experience and best practices
- Making a Choice to be involved
In his book “The New Economics” Deming said:

“A system cannot understand itself, it requires a view from the outside”
Deming also said:

““The first step is transformation of the individual” (change)

The transformation is intermittent as the individual begins to understand “the system of profound knowledge”
“the system of profound knowledge” includes: Appreciation for a system,
knowledge about variation,
the understanding of knowledge how and knowledge that, and lastly
Psychology – Individual, Group and Organizational
• What Really Happened to Toyota?

CONSUMERS WERE SURPRISED - October 2009 a series of highly publicized recalls of Toyota vehicles

Toyota announced that it was recalling 3.8 million U.S. vehicles triggered by the report of a fiery crash in California, where the accelerator of a Lexus sedan got stuck, resulting in the driver’s death.
Summary

Toyota - No ordinary company. In a class by itself.
Revered, for sterling Quality.

There were indications quality level of its products had fallen off in recent years.

- **1960’s - Toyota pioneered Quality Improvement Methodologies**
- **TQC – Total Quality Control**
- **Genesis of Six Sigma**
- **Linked Quality, Customer Satisfaction and Profit**
- **Management philosophy, employee training, growth all nurtured**
Details

A basic principle of risk management - identify risks early eliminate while they are still minor problems.

Toyota executives had a number of warnings about its deteriorating quality.

• Following initial recall - an additional 3.8 million recalls over 7 million total
• A 2010 Gallup survey found 36% of Americans believed Toyota unsafe
• May 2011 more than 20 million Toyota recalls
Details

Root Causes

Management’s decision to pursue rapid growth

Increasing complexity of products and new technology

- High-level quality task force set up in 2005 disbanded.
- Management believed quality “part of Toyota’s DNA” No need for a special committee.
- Politically powerful executives shrugged off early warnings of lower-ranking executives
Conclusions

Continuity requires clear incentives for the promotion of best practices.

Effective socialization of new employees.

Supportive organizational culture.

Adhered-to processes.

Strong problem solving processes.

• Problems caused by management decisions.
• Executives failed to respond aggressively to early signs of quality problems.
• There is no such thing as corporate DNA.
• No guarantees “systems and values” that provided foundation of success can be sustained without renewed commitment.
Total Cost

$3.1 billion

Payout

The tentative deal would cover costs related to lost used-car value, the installation of new safety gear and extension of warranties.

$250 MILLION

$250

BETWEEN

$200 AND

$400

$400

$200

To some owners who sold or traded in their vehicles for lost value
To owners whose brake systems can’t be updated
To install brake-override systems on up to 3.25 million vehicles
To cover extended warranties on components such as engine-control modules
Estimated attorneys’ fees, which a judge must approve

Sources: Hagens Berman; Toyota

The Wall Street Journal
Managing a Quality Environment

• performance governed largely by the system we work in, a management responsibility
• all people are different.
• institute training on the job
• break down SILO barriers between departments
• responsibility of supervisors must be changed from production to quality
• Vigorously support education and self improvement
Plan Globally, Act Locally

- Quality Plan is essential
- Quality Checklists are profound tools
- “Ruthless” application of QA during corporate stress
- People unwilling to comply, engage and report affect quality
- Managers ask yourselves “Can I prove that - we do what we say we do”? 
Leading/Lagging Indicators

• **Leading Indicator** - current information that may affect future performance (predict)

• **Lagging indicators** follow an event and confirm a pattern about to occur or is occurring (react)
Leading Performance Indicators

• Measure (audit) for an assurance of compliance (Policy, Process, Procedures for Regulatory and Company Compliance)

• Improvement – Surveys, # hazard reports submitted, LOSA/MOSA, FDM Trending, # Safety meetings

• Learning – personal/organizational commitment Hazard Updates/training completed/attendance at safety meetings/# reports by department, self disclosure - exceedence, deviations, mistakes...
Quality a part of the Social Fabric

- Engage SME’s to Create Checklists
- 360° feedback for the “pulse of the Nation”
- Checklist Process and Procedure to meet Policy
- “Do we/do I do what we say we are doing?
- Can you prove and demonstrate it?
- Qualify and document Auditors
A Summary

Quality Assurance Roadmap

Root Cause Analysis
QMS Requires Re-Work
Written to refer to the “Quality Manual” as a DIR
Policy
Maintenance
Flight Operations

Week of
Date  Date
Write revised section 7 MPM/NCM  Write generic Ops Manual sectionFW/RW
Identify current QA documents
Classify QA documents
Catalogue QA documents
Review/modify for completeness

Week of
Date  Date
Identify Classify Catalogue  Review/Modify
Descriptive Procedures Documents  Descriptive Procedures Documents  QA Qualification Process  Review by stakeholders

QA Function
QA Personnel
Qualification Process
Currency (Pt. 1 – QM)

Week of
Date  Date  Date  Date

Maintenance General
Stores
Work Instructions
Portal
Quality Assurance
Maintenance Programs

Maintenance
Tech Records
Maintenance Notices
Communication Tools
Flight/Maintenance Notices

Operations
Ops Manual
SOP
Ops Directives
Non-Flight Training

Maintenance
Tech Records
CAMP/Cescom/Etc.
Excel Tracking
Questions?