SEMINAR

ON

"ISO 9001:2000 IMPLEMENTATION"

1 Mar 2002
CITI Function Hall

Programme

8.30 am	Registration
9.00 am	Welcome Address
9.05 am	"BCA's Experience in Auditing ISO 9001:2000" by Chong Ching Hoe
9.50 am	Tea Break
10.15 am	"Electronic Solutions for Quality & Project Management" by Kenneth Fong
11.00 am	"Financial Assistance Scheme-LETAS" by Maria Low
11.15 am	Q&A Session
12.00 pm	End of Seminar

SEMINAR

ON

"ISO 9001:2000 IMPLEMENTATION"

1 Mar 2002
CITI Function Hall

Paper 1

"BCA's Experience in Auditing ISO 9001:2000"

By:

Chong Ching Hoe
Senior Quality Auditor
Quality Assessment Department
Building & Construction Authority

BCA's Experience

in

Auditing

ISO 9001:2000

Outline of Talk

- The Process Approach
- How the new requirements were addressed

50% of 5 firms have major non-conformances.

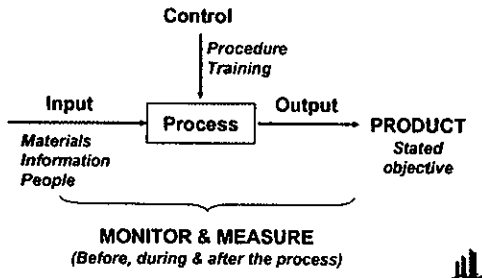
The Process Approach

What is a process?

ISO 9000 definition :

- set of interrelated or interacting activities which transforms inputs into outputs

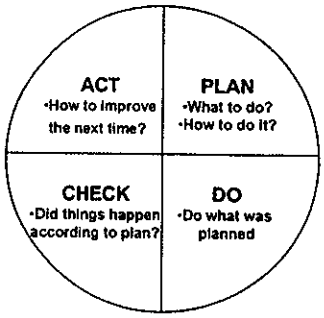
The Process Approach



Characteristics of a Process

- Clearly defined ownership
- Objectives clear & understood
- Defined boundaries - inputs & outputs are clear and unambiguous
- Control points established
- Monitoring & measurements established

The P-D-C-A Cycle



PDCA Applied to ISO 9001:2000



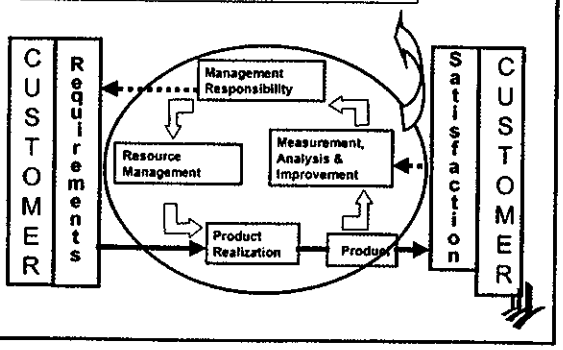
"Plan" establish the objectives and processes

"Do" implement the process

"Check" monitor & measure processes and product, and report results

"Act" take actions to continually improve process performance

Continual Improvement of the Quality Management System



Symptoms of an Ineffective Process

- Customer complaints
- Customer returns
- Inconsistent output quality
- Non-achievement of set objectives
- Number of rejects & rework

LOOKING MORE AT RESULTS RATHER THAN DOCUMENTATION!!!



How the new requirements were addressed



Increased emphasis on the role of top management

- Person or group of people who directs & controls an organization at the highest level *(ISO 9000 defn.)*
- Leadership
- Top management to demonstrate involvement & commitment



Quality objectives

- Established at each functional level?
- Established for each project?
- Measurable?
- Monitored?
- Are staff able to translate objectives into their individual contribution?



Setting objectives

Be SMART
Specific
Measurable
Achievable
Realistic
Time-frame



Quality objectives

Examples of project objectives:

- meeting quality score
- meeting milestone & hand-over dates
- achieve certain customer satisfaction score
- reduction in no. of complaints during hand-over



Quality objectives

Examples of purchasing objectives:

- minimize no. of late deliveries
- minimize no. of rejected delivery



Quality objectives

Examples of contract dept. objectives:

- set tender process deadlines
- set target dates to complete sub-contract agreements
- make sub-contract payment within certain dates



Quality objectives

Examples of HR objectives:

- minimize % of staff turn over
- achieve certain % of skilled work force



Management review

Common missing areas

- **Review of individual key process performance & product conformity**
- **Recommendations for improvement**
- **Decision and action plan on improvement areas**

Customer satisfaction

Who are the customers?

- **An organization or person that receives a product** *(ISO 9000 defn.)*
- **includes both external & internal customers**
- **Examples - consumer, client, end-user, retailer, beneficiary, purchaser, etc.**

Contractors are customer too!

Customer satisfaction

- **How do we obtain feedback?**
- **Are the avenues to provide feedback make known to customers?**
- **Are feedback/survey form a must?**
- **Are they carried out effectively?**
- **How do we use this information?**

Not compulsory to send out survey form.

Monitoring & measurement of processes

- How can we monitor process performance?
- What measurements are necessary?
- How are data recorded?



Monitoring & measurement of processes

Some examples:

- What can go wrong?
- What measures are put in place to prevent things going wrong?
- How do we deal with things that went wrong?



Analysis of data

- What data do we need to collect?
- Where do the data come from?
- How can we best analyse gathered information?
- What does the result of this analysis tell us?



Analysis of data

Examples of data that can be analyzed:

- inspection records
- site memos / instructions
- requests for information
- non-conformance reports / defects lists
- audit reports
- customer feedback / complaints
- meeting minutes, correspondences ...



Continual improvement

- How do we know where to improve?
- How can we improve the process?
- Do we need to demonstrate that improvements have been made?



Not necessary when improvement is necessary so long as the analysis shows good results.

Thank You



SEMINAR

ON

"ISO 9001:2000 IMPLEMENTATION"

1 Mar 2002
CITI Function Hall

Paper 2

"Electronic Solutions for Quality and Project Management"

By:

Kenneth Fong
General Manager
e-Project Solutions Pte Ltd



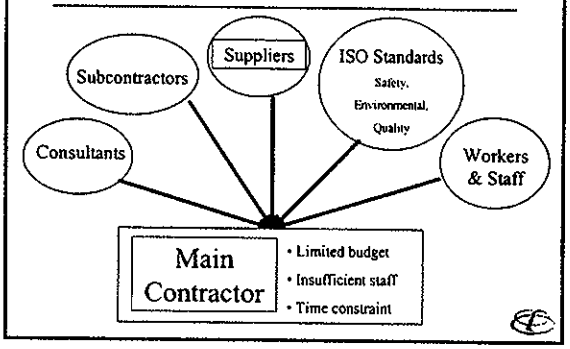
e-Project Solutions Pte Ltd

Company Profile

- Preferred Partner of IBM / Lotus
- Strategic Partner of HDBuilders.com
- Pre-Approved e-Submission certified consultant with BCA
- Member of AAC (ASP Alliance Committee)
- iForce Partner of Sun Microsystems
- LIUP (Lotus/IDA)
- Member of SITF (LECP)
- Experience in ISO Systems
- Technology Expertise

e-Project Management & Documentation

Current Industry Practice



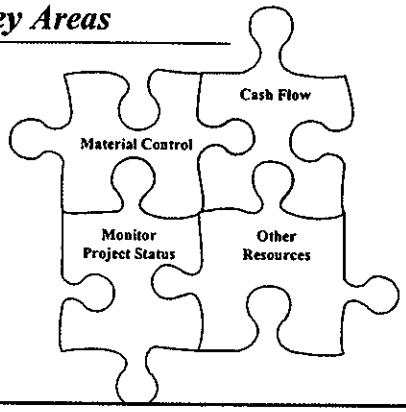
Pitfalls

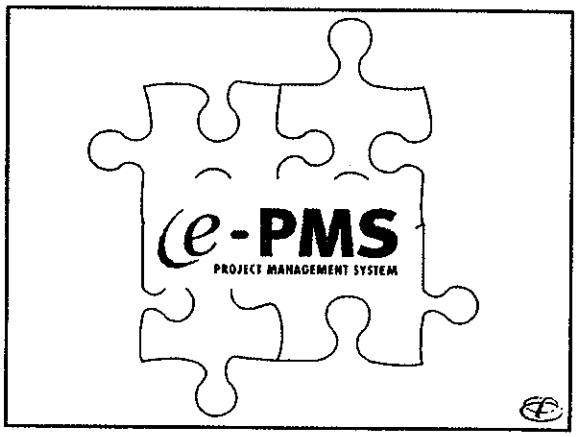
- "Managing the Project" vs. "Running Project"
- Daily " Fire-fighting"
- Miscommunication
- Tedious Documentation
  - General Documents
  - ISO Documents
- Loss of information & time
  - Staff Movement
  - Disorganized Documentation
- Non-ISO compliance
- Reactive Business

Framework for e-Project Management

- e-Documentation
  - Less administrative work
  - Less duplication
  - Accountability
- Workflow Automation
- IT Platform
  - Facilitates communication
- Tracking & Alert
  - Monitor project schedules & budget
  - More time for planning & supervision of site

Key Areas





Features of e-PMS

- Integrated solutions on a single IT platform
- System alert
- Activity Tracking
  - Project Schedule
  - Material Usage
- Consolidated progress reports
- Security Setup
- PDA Capabilities
- Supports Remote access
- Workflow capabilities

Benefits

- Integrated system for better communication
  - Seamless transfer of information
  - Shared information, less duplication
  - e-documentation, traceability
- Helicopter view of all projects
- Easy access to updated information anytime,anywhere
- System Alert
- Anticipate & Prevent unnecessary delay in project
- Tighten Control Over Budget & Material Usage
- Saves on uncontrolled wastage

e-Quality Management & Documentation

Needs of ISO Certified Companies

- Manual Documentation
  - Lengthy review cycle process
  - Outdated documents
  - Inconsistent revision levels
- Deterrent to improvement
- Human Errors
- Time Consuming
- Decreasing Productivity
- Increasing Operating Cost
  - Storage & hidden cost

What is e-QMS?

- e-Documentation System
- Workflow Automation
- Knowledge Management System



Modules in e-QMS

- QDS (Quality Documentation System)
- IQA - CAR
- CAR (Corrective Action Request)
- PAR (Preventive Action Request)
- MR (Management Review)
- CC/CAR (Customer Complaint Reporting)



Features of e-QMS

- Integrated System
- e-Documentation
- Routing History
- System Alert
- System Security



Benefits of e-QMS

- Save cost
  - Documentation
  - Manpower
- Traceability & accountability
- Better communication
- Auto reminder / Alert
- Reduce human errors
- Shorter review cycle process
- Increase productivity
- Data security



e-Quality Management System

Supports the following :-

ISO 9000 : 2000
ISO 14001
OHSAS 18001
QS 9000
HACCP



Thank You





SEMINAR

ON

"ISO 9001:2000 IMPLEMENTATION"

1 Mar 2002
CITI Function Hall

Paper 3

"Financial Assistance for Technology Upgrading and Innovation"

By:

Maria Low
Senior Development Officer
Innovation Development Department
Building & Construction Authority

Financial Assistance for Technology Upgrading and Innovation

BCA is offering a suite of financial assistance programmes to help the construction industry stay competitive during the current tough times as well as to get ready for new challenges and opportunities for medium to long term growth. The key here is to encourage application and development of new technologies and best practices among the industry players. These include programmes to speed up the adopton of IT and infocomm technologies, schemes to encourage investment in advanced construction equipment, assistance for management upgrading and grants to support the realisation and commercialisation of innovative products and services at the company as well as at the industry level.

Rapid developments in IT and infocomm technologies are beginning to reshape the industry in the way construction projects are designed, procured and managed. Jumpstart Construction is one new programme to encourage the industry to go on-line for submission of building plans, project collaboration and commercial transactions. More than 200 developers, consultants, contractors & suppliers have benefitted from The Industry Productivity Fund (IPF), which has supported collaborative industry-level projects such as the Project Website , the E-Procurement Portal and the Construction Productivity Benchmarking Project . The Innovation Development Scheme (IDS) promotes industry driven innovation, resulting in new products and services which significantly improve quality and productivity. Projects approved under IDS include the Radio Frequency Indentification System for Precast Plant, Recycled Wood Flooring, Architectural Precast Finishes and Advanced Rebar Pre-caging System. The other assistance schemes for the construction sector include the Local Enterprise Technical Asssistance Scheme (LETAS), Investment Allowance Scheme (IAS) and Initiatives in New Technologies Scheme (INTECH).

50% or $20,000 per firm

Jumpstart Construction Programme

		Consultancy	Hardware	Software	Subscription
Jumpstart Construction is an e-Commerce adoption and enablement programme for the construction sector. The programme aims to accelerate the online transaction capability of firms by helping them adopt "ready-made" e-commerce solutions on projects relevant to the construction industry. All construction related SME firms are eligible for the programme.	**E-Submission**	Consultancy & training on implementation of one-stop e-submission system to building regulatory authorities by QPs for approvals.	Netrust Card Reader, PC, Other project relevant peripherals(eg scanner, printer, digital camera and modem)	Form Filling tools, SS CP83 Utilities,Adobe Acrobat,CAD software	Netrust Registration, Netrust License (1yr), Netrust Card, Broadband subscription
	E-Collaboration	Consultancy & training including feasibility study, process mapping & internal networking for real-time collaboration among business partners for effective project management.	PC, Other project relevant peripherals(eg scanner, printer, digital camera and modem)	Specified software including operating system, web development	Subscription for ASP, Broadband
	E-Procurement	Consultancy & training on setting up of e-procurement portal for on line transaction of building products & services	PC, Other project relevant peripherals(eg scanner, printer, digital camera and modem)	Specified software including operating system, web development	Subscription for ASP, Broadband

Local Enterprise Technical Assistance Scheme (LETAS)

		Consultancy
The scheme is intended to help construction related firms defray their costs in engaging external consultants to assist in developing new management systems, IT upgrading and new product line. All construction related SME firms are eligible for the scheme.	**ISO 9000 / ISO 14000 / OHSAS 18000**	Consultancy & training leading to certification of ISO & OHSAS
	IT Upgrading	Feasibility and Implementation Consultancy on in-house IT workflow integration and networking
	Product Development	Consultancy to develop new products or services.

Investment Allowance Scheme (IAS)		
		Capital Investment
The scheme aims at encouraging the capital investment in technologically advanced construction equipment, CORENET-related hardware & softare and prefabrication equipment.	Construction equipment	Capital investment in technologically advanced construction equipment
	IT Hardware & Software	Construction-related Hardware & Software including software for Feature-based CAD design & other CORENET related software
	Prefabrication Equipment	Equipment for manufacturing of precast concrete and prefabricated components

Initiatives in New Technologies Scheme (INTECH) (Administered by EDB)		Training
The objective of the scheme is to equip construction industry professionals with advanced IT skills in CORENET-related fields. Singaporeans and PRs who are technicians and professionals are eligible for the scheme.	CAD Standards for e-Submission	Training on SS CP83 Standard
	Object-oriented CAD familiarisation programme for CORENET applications	Training on Object-oriented CAD
	Hands-on for e-submission System	Training on e-Submission System
	Hands-on for e-BDAS System	Training on e-BDAS system
	All other CORENET hands-on applications	To be launched progressively

Innovation Development Scheme (IDS)		**Manpower-related costs**	**Equipment & Materials**	**Professional Services**	**Intellectual Property Rights**
IDS aims to encourage and assist construction-related companies to engage in the innovation of products, processes and applications and develop depth in innovation capabilities. Most importantly, the project should involve innovation/significant improvement of product, processes, applications or services. All Singapore registered companies are eligible for the scheme.	**IT & Infocomm**	Salary of project members, airfare, cost of living allowance and training costs	Equipment, materials/consumables and software	Consultancy and subcontracting	Licensing / royalties and techology acquisition
	Construction Automation				
	Quality & Productivity improvement				
	High Performance Materials				
	Environmental				

Industry Productivity Fund (IPF) (Administered by PSB)		Manpower-related costs	Equipment & Materials	Professional Services	Intellectual Property Rights
The IPF aims to encourage companies within the construction industry to collaborate on projects to implement fundamental or radical changes in strategies, operations or practices, leading to significant gains in productivity and competitiveness for the industry as a whole. Each project should involve at least 3 companies working together to achieve economies of scale and greater impact.All Singapore registered companies are eligible for the scheme.	**IT & Infocomm** **Industry Best Practices** **Quality & Productivity benchmarking** **Business / Technology Process Improvement** **Resource Management**	Salary of project members, airfare, cost of living allowance and training costs	Equipment, materials/consumables and software	Consultancy and subcontracting	Licensing / royalties and techology acquisition

Contact Us for assistance

Building & Construction Authority (BCA)
5 Maxwell Road
#17-00 Tower Block MND Complex
Singapore 069110

Tel: 3255067
3255068
3255069
3255017
Fax: 2236381
Email:bca_enquiry@bca.gov.sg