REFRESHER WORKSHOP

ON

INTERNAL AUDITING

25 September 2002
CITI Auditorium

Conducted by:
CHONG CHING HOE

Building and Construction Authority

Refresher Workshop
on
Internal Auditing

Conducted by:
CHONG CHING HOE

Building and Construction Authority

Accreditation

- BOA-SIA CPD Programme - 2 CPD Points
- CPD of PEB - 2 PDUs

Outline of Workshop

- The Process Approach
- Auditing to ISO 9001:2000
- How to conduct the Process Approach audit
- Integrated management systems
- Questions & Answers Session

The Process Approach of ISO 9001:2000

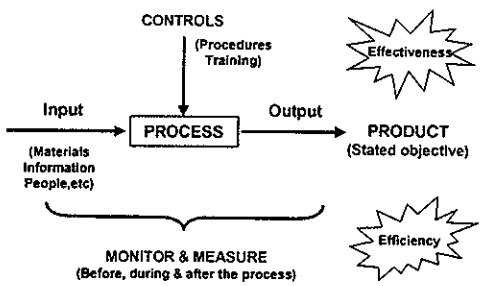
The Process Approach

What is a process?

ISO 9000 definition :

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

The Process Approach



The Process Approach

Inputs:

- Materials, people, information, etc...
- clearly defined and understood
- customer requirements
- customer feedback

7

The Process Approach

Outputs:
(product-result of a process)

- Stated objective
- clearly defined and understood
- has a customer

8

The Process Approach

Customer:

- An organization or person that receives a product
- includes both external & internal customers
- client, consumer, end-user, retailer, beneficiary, purchaser, etc.....

9

The Process Approach

Controls:

- Procedures
- training

10

The Process Approach

Monitor & measure process:

- Before, during & after the process
- monitor process performance
- establish the necessary measurements
- decide on data collection

11

The Process Approach

Monitor & measure process:

- Which process to monitor?
- Key process
- Those that can go wrong
- Are measures put in place to prevent them going wrong?
- How do we deal with things that went wrong?

12

The Process Approach

Setting Objectives:

- All relevant functions & levels are considered, including projects
- measurable
- inputs from customer, suppliers & staff
- relevant to customer needs & expectations

13

The Process Approach

Setting Objectives:

- Consider current performance
- staff able to translate objectives into their individual contributions
- realistic & achievable
- monitor the achievement

14

Some examples of functional objectives

Tender dept:

- set tender process deadlines
- participate in PQ exercises and achieve successful qualification to tender

15

Some examples of functional objectives

Contracts dept:

- to minimize deviation between monthly progress claims with approved projected monthly cash flow payment
- to ensure payment to sub-contractors & suppliers within the specified time-frame

16

Some examples of functional objectives

Purchasing dept:

- no late deliveries
- no wrong deliveries

17

Some examples of functional objectives

Projects:

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

18

Some examples of functional objectives

Design dept:

- to meet submission requirements & deadlines
- to meet clients requirements

19

Some examples of functional objectives

Defects management:

- rectify defective works as per requirements of clients/home owners
- obtain maintenance certificate on time

20

Some examples of functional objectives

HR dept:

- minimize % of staff turn-over
- achieve training requirements as planned

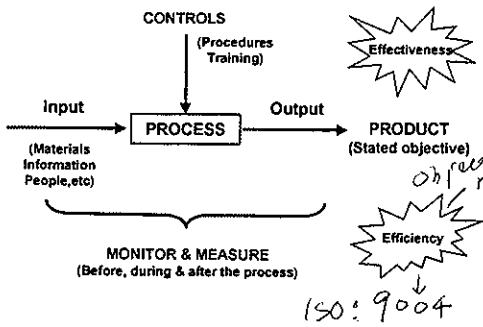
21

Examples of architectural services key processes

- Schematic design
- design development
- authorities submission
- contract documentation
- tender action
- contract administration
- contract completion

22

The Process Approach

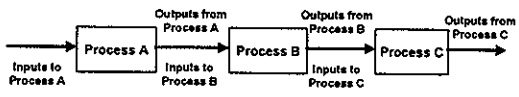


ISO: 9004

23

The Process Approach

- Outputs from one process form part of inputs into subsequent processes
- Quality management system comprises a number of interrelated processes



24

Characteristics of a Process

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

25

The Process Approach

- Customers play a significant role in defining requirements as inputs
- Customer feedback on satisfaction of product is an essential input to the continual improvement process of the QMS

26

Symptoms of an Ineffective Process

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

LOOK AT RESULTS RATHER THAN DOCUMENTATION!!!

27

Auditing to ISO 9001:2000

28

What is an Internal Audit?

- An assessment of the quality management system to determine effectiveness in meeting customer requirements (including statutory & regulatory requirements)

29

What is NOT an internal audit?

- A fault finding mission
- looking only at documentation
- purely a check on compliance to procedures

30

Think about these.....

- Do the procedures work for you and the organization?

or

- Does the organization work for the procedures?

31

What does the standard require?

To determine whether the quality management system:

- conforms to the quality plan for product realization
- conforms to the requirements of ISO 9001:2000

32

What does the standard require?

To determine whether the quality management system:

- conforms to the system requirements established by the organization
- is effectively implemented and maintained

33

What are the requirements as internal auditors?

Auditors shall possess the following attributes and skills:

- complete a formal course on internal auditing (can be in-house training, if conducted by a competent trainer)
- be technically conversant with the organization's processes
- have a good understanding of ISO 9001:2000 requirements

34

Can the audit be out-sourced?

Yes, provided:

- procedure for outsourcing process is established
- criteria for selecting auditors are established
- audit results are reviewed and analyzed

35

How can we achieve an effective audit?

- Appoint competent auditors
- plan the audit, taking into consideration the status & importance of the processes and areas to be audited, as well as the results of previous audits
- conducts the audit using the process approach

36

How can we achieve an effective audit?

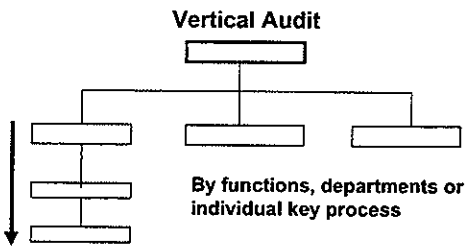
- Do not concentrate on documentation, but to focus on the effectiveness of the processes to determine whether they can achieve the desired results
- assist the organization to identify areas for further improvement

37

How to conduct the Process Approach audit

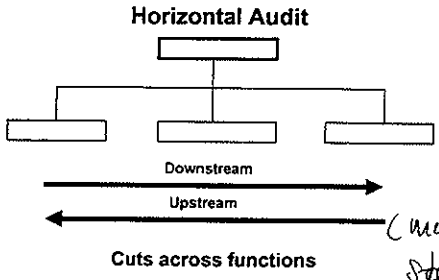
38

Audit Strategy



39

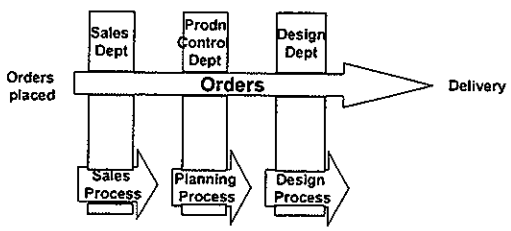
Audit Strategy



(most effective) start with seeing end results in order) -

40

Process Approach - Example



41

Remember……

- Do not give audit programme by ISO clauses
- But by either vertical or horizontal audit
- i.e. use THE PROCESS APPROACH

42

What auditors should look for.....

- Overall conformance to the requirements of the standard
- Demonstration of management commitment
- Process approach and ability of these processes to meet customer requirements

43

What auditors should look for.....

- Effectiveness in achieving customer satisfaction
- Demonstration of continual improvement

44

Some examples of non-conformances

- NCR 01: The PQP was not updated every quarter as required by the procedure
- NCR 02: The training record was not updated to show project manager Ng had attended a course on internal audit in Nov 2001 .....(End of report)

Any value from these reports raised? NO.
(does it affect the output to the customer?)

45

Some examples of non-conformances

- NCR 03: Carpenter Ong was found not wearing a safety belt when working on the 12th-storey of block A
- NCR 04: Bricklayer Bala was found laying bricks which have not been pre-soaked

Anything wrong with these two NCRs?
(Not complete, need to probe further to see whether is there a system to ensure the results)

46

Reporting non-conformances

- State facts observed ✗
- Report weakness of system ✓

Which has more value?

47

Checklist Benefits

- Keeps audit objective clear
- Evidence of planning
- Maintains audit pace & continuity
- Reduces auditor bias
- Reduces workload during audit
- Records audit sample

48

Some Questions to start with.....

- What are the everyday things the dept does?
- What are the special or different things the dept does?
- What can go wrong?
- What measures are put in place to prevent things going wrong?
- How does it deal with things that went wrong?

49

Checklist for Customer Satisfaction

Look AT Data Collection

Look FOR

- Defined methodology
- Effective collection of data

50

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?

51

Checklist for Data Analysis

Look AT Data Analysis

Look FOR

- Defined methodology
- Trend analysis

52

Analysis of data

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

53

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 ...

54

Are audit results required to be analyzed?

Yes, the analysis would provide information relating to:

- customer satisfaction
- conformity to product requirements
- characteristics & trends of processes & products including opportunities for preventive action
- suppliers

55

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?

56

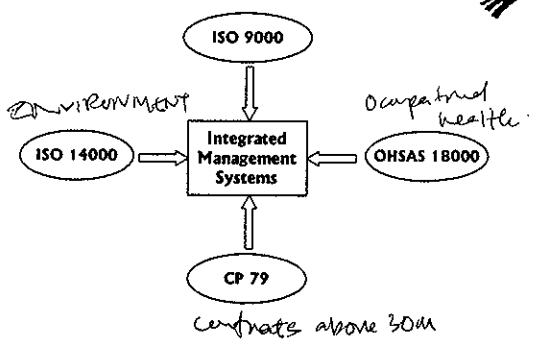
In summary

- Is the audit still compliance based?
- Do you still focus on documentation?
- Do you audit effectiveness of process?
- Are auditors competent to audit process?
- Are results analyzed?

57

Integrated management systems

58



59

Benefits of Integration

- No duplication of efforts
- Effective use of resources
- Reduced number of audits per year
- Reduced costs

60

Integrated Management Systems

Common elements

- **Policy statement**
- **Defined organisational structure and responsibilities**
- **Document control**
- **Control of records**

61

Integrated Management Systems

Common elements

- **Training**
- **Internal audits**
- **Corrective action**
- **Management review for continual improvement**

62

Integrated Management Systems

Suggestions:

- **for new company, to start with integrated mgmt systems approach**
- **for company with ISO 9000, to gradually integrate the requirements rather than trying to fit in new requirements straightway**

63

Integrated Management Systems

Lessons learnt:

- **easier to integrate environmental, health & safety rather than quality**
- **audit team to have required skills as a whole**

64

Questions & Answers Session

65

Thank you very much

66