BEYOND
SMART CITIES
ISO 14001 LEAD AUDITOR
REFRESHER TRAINING
FOR ENVIRONMENTAL SPECIALISTS
KRISHNAJI PAWAR, LEED AP BD+C,GSAS CGP,ISO 14001:2015,GCP
ENVIRONMENTAL SPECIALIST CURRICULUM

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SMART CITIES
AUDITING - AUDIT TRIAL
FOR ENVIRONMENTAL PROFESSIONALS
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LEARNING OBJECTIVES
Audit Trial
Audit Trail - Input
Five Basic Questions
Audit Trail - Outputs
Audit Trail – Measures of Effectiveness

AUDIT TRAIL

If the auditor does not understand the specification, then he cannot check if the process being followed meets the requirements of the requisition.

- what does the requisition require – does this comply with the agreed specification?
- how is the decision to purchase made?
- how is the specification decided? Is it adequate?
- who decides what is required and do they have the authority?
- who chooses the supplier and by what criteria?
- what is the process for bid evaluation?
- how is the specification advised to the supplier?
- are national or international standards used?
- what controls the process?
- are there any special packing delivery requirements?

AUDIT TRAIL

- "Horizontal" audit – audit of one system across several functional groups (one thing-many places) audit across several groups to evaluate if a consistent approach is being followed e.g. for competence
- "Vertical" audit – audit each function (department) of the organization and audit all processes in each function (many things-one place) audit within a manufacturing cell for process performance, product compliance, data analysis, corrective action, improvement etc.
- A combination of the above methods can also be used in accordance with the audit objectives and program

AUDIT TRAIL - INPUT

Personnel	What skills are required?
	What skills set is available?
	What are the competency gaps?
	How effective has any training been?
Documents	Where does the document come from?
	How does the auditee know if the document is the most current?
	Is it latest revision document?
	Does the document clearly provide the necessary information
	How could the document be improved
Material	Where does the material come from? Approved supplier – supplier evaluation
	How do you know the material is correct? Incoming inspection
	How do you know if the material composition is correct? Test results
	Does the material documentation provide the necessary documentation? SDS

AUDIT TRAIL - INPUT

Equipment	Who determines the appropriate equipment to use?
	How do you know if the equipment is appropriate for the job?
	Is the equipment maintained? What are the maintenance requirements?
	Has the maintenance been performed? Competency requirements, planning, legal requirements?
	How could the equipment be improved?
Environmental	Are there any environmental considerations for this process? Hot , cold temperatures
	How the environmental requirements controlled & documented?
	Are the environmental requirements adequate?
	Who establishes the environmental requirements?
	How could the environmental requirements be improved?
General Inputs	What information do you receive in order to perform this activity?
	Where does this information come from?
	When do you get this information?
	How could this information be improved?

FIVE BASIC QUESTIONS

Basic questions can apply even though the "specific questions" will be different:

- What are you trying to do?
- How do you make it happen?
- How do you know you are doing it right?
- How do you know it's the best way of doing it?
- How do you know it's the right thing to do?

AUDIT TRAIL - OUTPUTS

- What do you send to others?
- Who are the recipients?
- How do you know if the output is complete sufficient or correct?
- What records do you keep documenting what you did and if it is correct?
- How satisfied are the recipients of the output?
- How would recipient improve what they get?

AUDIT TRAIL – MEASURES OF EFFECTIVENESS

- What method and criteria do you use to determine process performance?
- What is the linkage between criteria and process performance?
- What metric(s) do you use to measure the performance based on the criteria?
- Are your measures on target?
- Is the data trending in the right direction?
- Are there ways you could better measure or improve process?
- A robust audit program shows its presence both at the begging and end of continual improvement. In the beginning, audits identify opportunities for improvement;
- At the end audits provide mechanism for monitoring the implemented improvement in order to sustain its benefits for the long term.