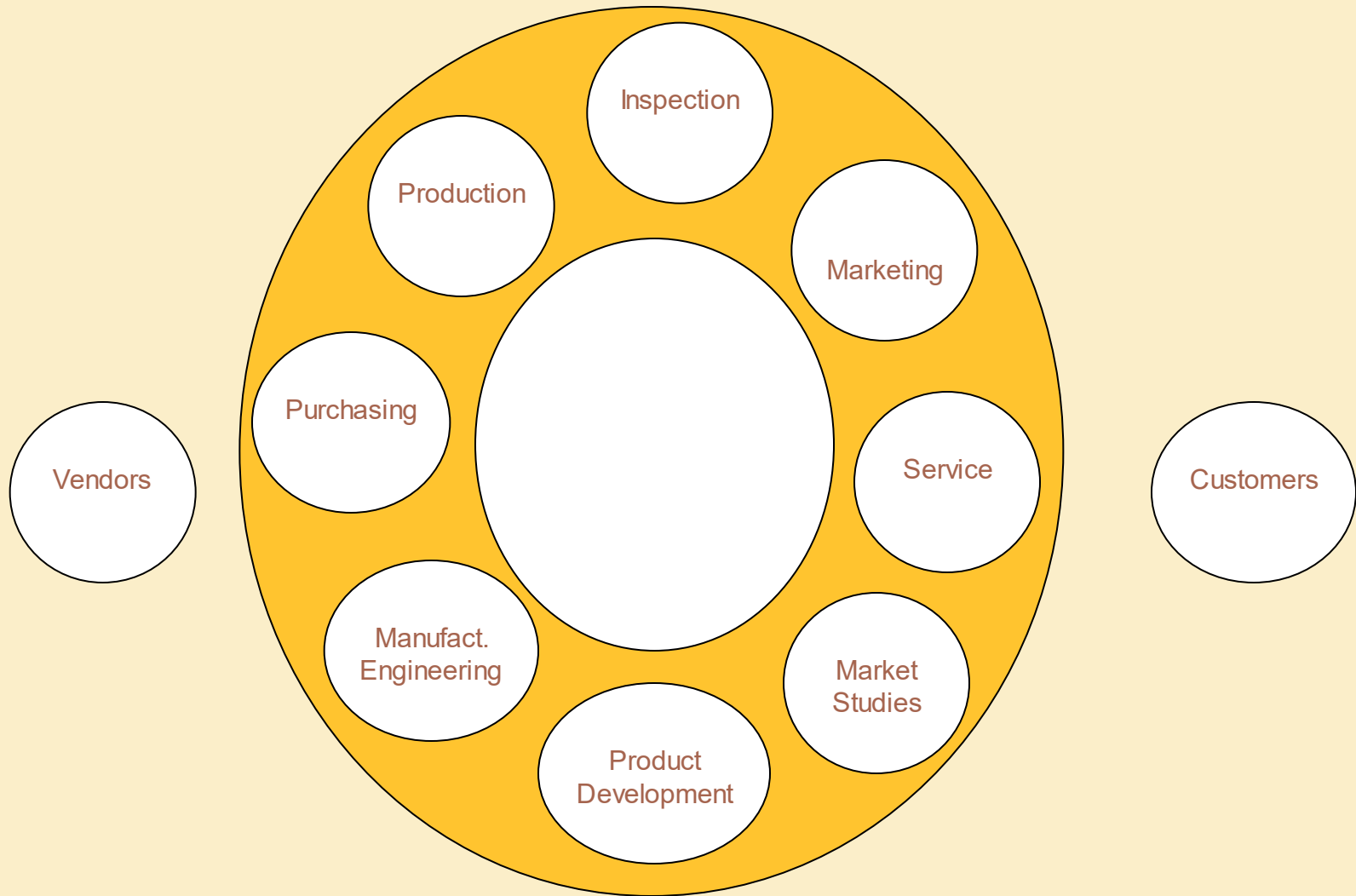


QUALITY MANAGEMENT SYSTEM ISO 9001: 2000

THE QUALITY CYCLE



QUALITY IN RELATION WITH MANAGEMENT SYSTEM - ISO 9000

Quality Definition: ISO 8406

- × **The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.**

WHAT IS ISO 9000

- ISO is a 'nickname' to “International Organization for Standardization”.
- ISO is a non-governmental organization established in 1947 by International Standard Agency headquartered in Geneva.

Principles are applicable to all organizations

WHAT IS ISO 9000

ISO 9000 is a written set of standard which describe and define the basic elements /clauses of the quality system needed to ensure that an organization's products/or services meet or exceed customer needs and expectations

WHAT IS ISO 9000

ISO 9000 series of standards are the most popular reference model for setting up quality assurance systems in organizations.

These standards, based on the **BS 5750** series developed in 1979 by the British Standards Institution (BSI) in the United Kingdom, were first established in 1987, but their world wide success was a result of the revision carried out in 1994. The results of the most recent revision (2000) remain to be seen.

WHAT IS ISO 9000

- ✘ The ISO 9000 standard does not attempt to measure the quality of the products or services of companies, i.e. they make no reference to achieving a certain objective or result.
- ✘ They are a management tool based on the **systematization and formalization of tasks** in order to obtain uniformity in the product and to conform to the specifications established by the customer

PRINCIPLES OF ISO 9000

- **ISO 9000 is a standard for a quality system, not product.**
- **ISO 9000 is based on documentation and is premised on the following:-**
 - × - **Document what you do;**
 - × - **Do what your document;**
 - × - **Prove it and improve it**
- **ISO 9000 emphasizes prevention.**
- **ISO 9000 is a universal standard; the focus is on what needs to be done and not on how it is to be carried out**

ISO CERTIFICATION:

ISO does not itself issue certificates of conformity to ISO 9000 or ISO 14000. This is carried out independently of ISO by certification bodies in different countries.

WHY QUALITY SYSTEM - ISO 9000

- **To satisfy customers through a quality product**
- **To gain self confidence – we get what we planned**
- **To achieve competitiveness in both the local and overseas markets.**
- **As a blueprint for efforts to improve the quality system of the organization.**

QUALITY SYSTEM = VEHICLE

QUALITY MANAGEMENT = DRIVER

QUALITY POLICY = ROAD MAP

ADVANTAGES OF ISO 9000 IMPLEMENTATION

WHAT IS IT INTENDED FOR?

This International Standard specifies quality system requirements for use where organization's capability to design and supply conforming product needs to be demonstrated.

The requirements specified are aimed primarily at achieving customer satisfaction by preventing nonconformity at all stages from design through to servicing

BENEFITS OF ISO 9000 IMPLEMENTATION

For the company:-

- **Well defined organization and responsibilities, i.e., minimize grey areas and possible resources wastage.**
- **Standardize practice and establishment of proper communication channel, i.e. maximize productivity and communication efficiency.**

BENEFITS OF ISO 9000 IMPLEMENTATION

For the company:-

- **A greater degree of internal control.**
- **Ultimately, increase profitability and market share, improve competitive position.**

For the customer:-

- **Increase satisfaction and growth in confidence.**

ISO 9000 AND ISO 9001

- × ISO 9000 deals with the fundamentals of quality management systems including the eight management principles on which the family of standards is based.
- × ISO 9001 deals with the requirements that organizations wishing to meet the standard have to meet.

**QUALITY MANAGEMENT
SYSTEM – ISO 9001:2000**
IT'S A NEW REVISION STANDARD

ISO 9001 REVISION 2000 BEEN DEVELOPED BY TC 176, AFTER A GREAT DEAL OF RESEARCH ON EIGHT QUALITY MANAGEMENT PRINCIPLES

Eight Quality Management Principles

- **Customer - focused organization**
- **Leadership**
- **Involvement of people**
- **Process approach**
- **System approach to management**
- **Continual improvement**
- **Factual approach to decision making**
- **Mutually beneficial supplier relationship**

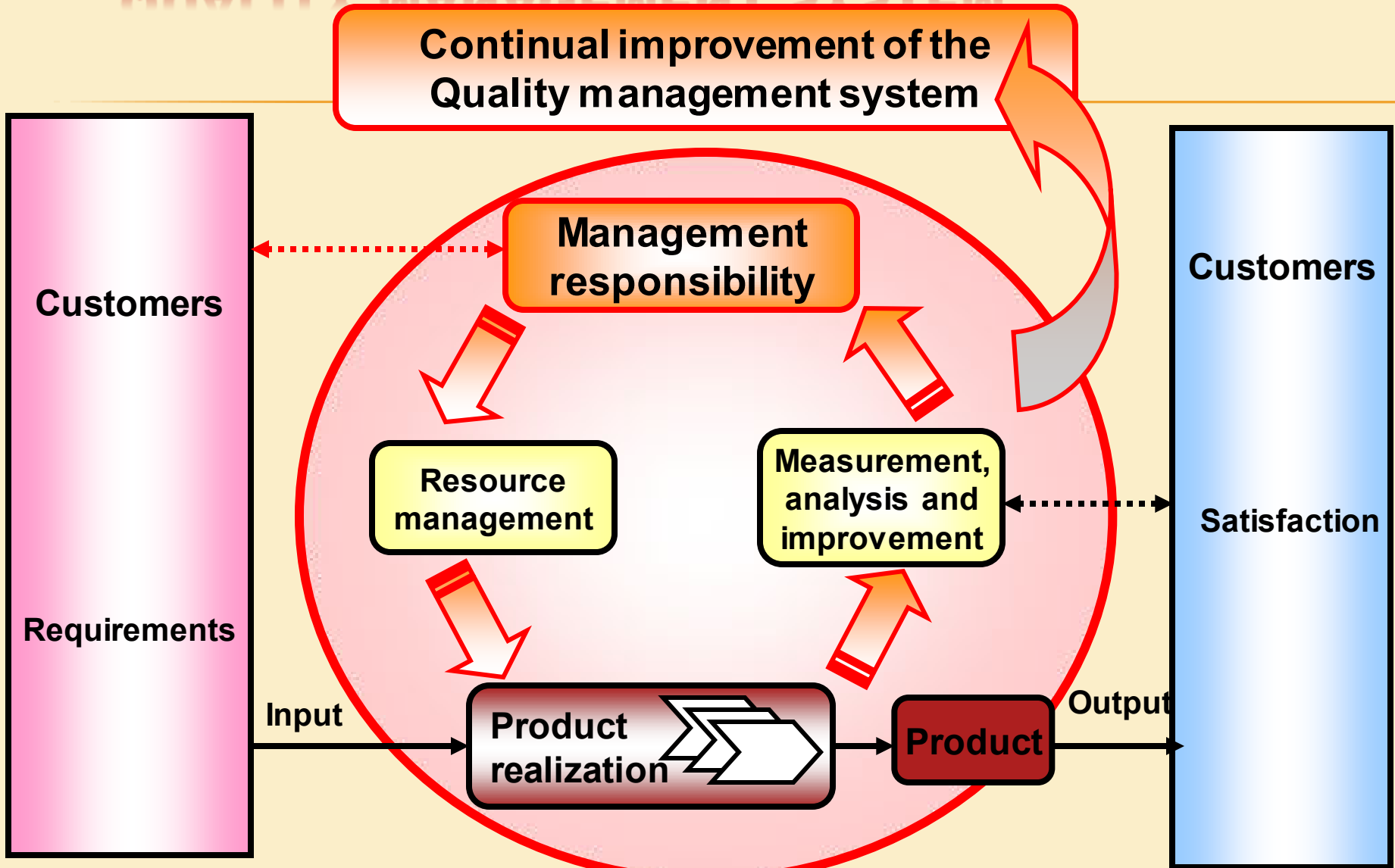
STRUCTURE OF THE ISO 9001:2000 STANDARD

- **20 elements of ISO 9001:1994 still there but in the context of a model based on organizational processes**
Core organizational processes covered under:
 - × **Clause 5. MANAGEMENT RESPONSIBILITY**
 - × **Clause 6. RESOURCE MANAGEMENT**
 - × **Clause 7. PRODUCT REALISATION**
 - × **Clause 8. MEASUREMENT, ANALYSIS AND IMPROVEMENT**
 - × **supported by:**
 - × **Clause 4: Quality Management System**

Structure of the new ISO 9001:2000 standard

- **Process-oriented structure and a more logical sequence of contents**
- **Allows for more flexibility on amount of documentation**
- **Changes in terminology for easier interpretation by all sectors.**

QUALITY MANAGEMENT SYSTEM



←.....→ *Information flow*
→ *Value-adding activities*

The ISO 9001:2000 standard has new more clearly defined requirements relating to :

Continual improvement;

Increased emphasis on the role of top management;

Consideration of legal and regulatory requirements;

Establishment of measurable objectives at relevant functions and levels;

Monitoring of information of customer satisfaction as a measure of system performance;

The ISO 9001:2000 standard has new more clearly defined requirements relating to :

- × Increased attention to resource availability;**
- × Determination of training effectiveness;**
- × Measurements extended to systems, process and product;**
- × Analysis of collected data on the performance of the QMS;**
- × Control of outsourced processes .**

**DOCUMENTING THE SYSTEM
BASED ON ISO 9001:2000
STANDARD**

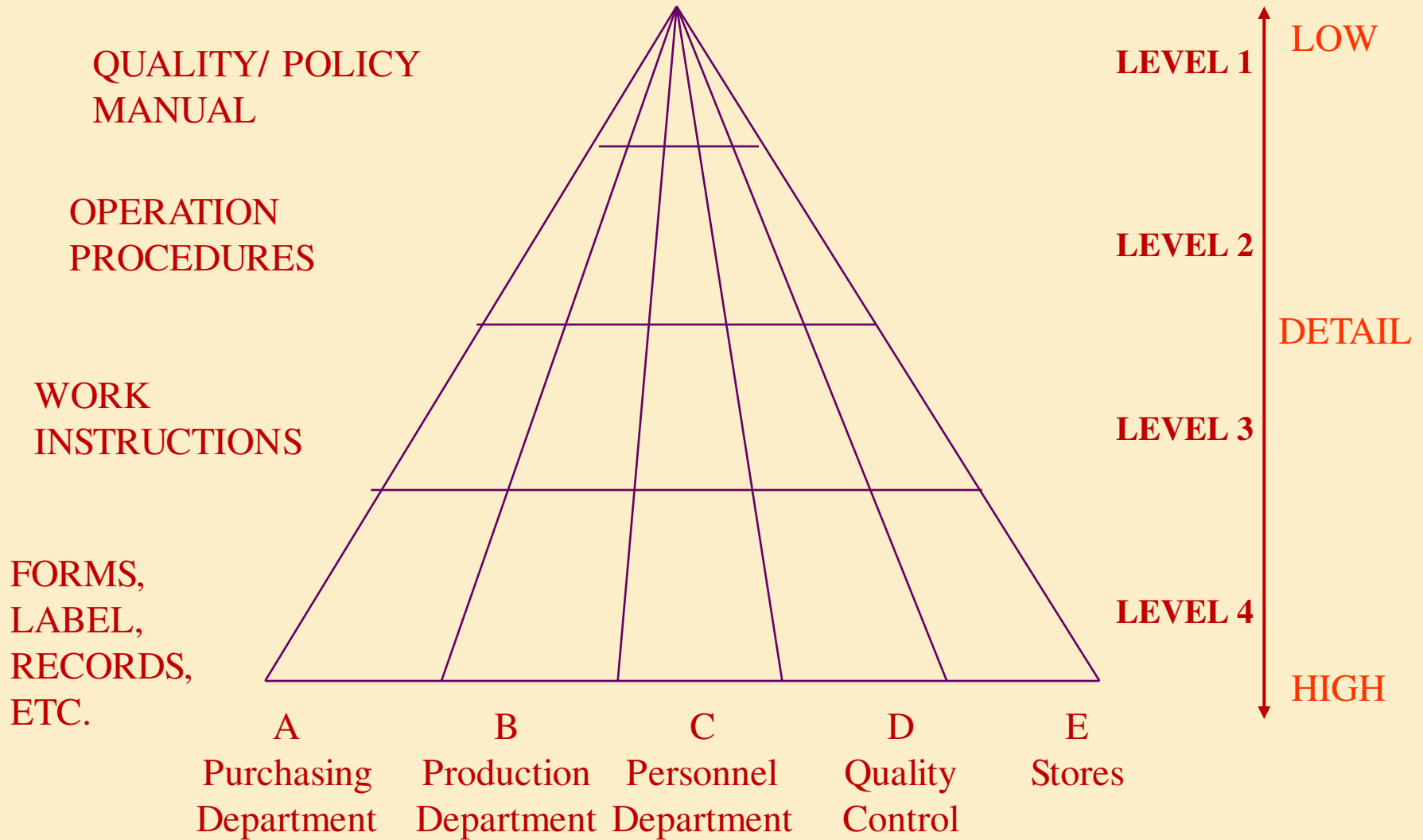
QUALITY MANAGEMENT SYSTEM DOCUMENTATION

The organization shall establish, document, implement and maintain a quality management system and continually improve its effectiveness in accordance with the requirements of this International Standard.

(Clause 4.1, ISO 9001:2000)

- **Documentation is a set of documents, for example specifications and records.**
- **Document is information (meaningful data) and its supporting medium.**
- **Quality management system is a management system to direct and control an organization with regard to quality.**
- **Quality manual is the document specifying the quality management system of an organization.**

DOCUMENTATION PYRAMID



LEVEL 1: QUALITY MANUAL

The quality manual as a highest level document at the peak of a pyramid outlining the quality system and acting as a directory for the documents and procedures below. It will outline the company's policy and commitment to quality.

WHY NEED QUALITY MANUAL?

- 1. Communicating the organization's quality policy, procedures and requirements;**
- 2. Describing and implementing an effective quality system;**
- 3. Providing improved control of practices and facilitating assurance activities;**
- 4. Providing the documented bases for auditing the quality system;**
- 5. Providing continuity of the quality system and its requirements during changing circumstances;**
- 6. Training personnel;**
- 7. Presenting quality system for external purposes;**
- 8. Demonstrating compliance of the quality system with quality requirements**

Quality Policy

Clause 5.3

The overall quality intentions and direction of an organization related to quality, as formally expressed by top management

LEVEL 2: OPERATION PROCEDURE

A second tier set of departmental procedures detail how that commitment is applied to the company operations and lay down procedures for the management to control the system

PROCEDURES DEVELOPMENT

1. Review current practice
2. Analyze current practice
3. Develop a draft procedure
4. Release draft for comment
5. Review comments
6. Revise and issue procedure for acceptance
7. Obtain approval
8. Issue for use
9. Implement
10. Monitor and Review

SUGGESTED FORMAT

- 1. PURPOSE**
- 2. APPLICATION/SCOPE**
- 3. REFERENCE DOCUMENT**
- 4. DEFINITION**
- 5. RESPONSIBILITY**
- 6. QUALIFICATION OR TRAINING**
- 7. PROCEDURE**
- 8. RECORD**
- 9. ATTACHMENT**

LEVEL 3: WORK INSTRUCTIONS

This third tier of work instructions details the day-to-day operating instructions to provide control of quality and being applied in the manner laid down in operation procedures.

Work Instructions

The written and /or spoken direction given with regard to what is to be done, including the information given in training.

What is to be done?

How it should be done?

Who should do it?

When it should be done?

Supplies, services & equipment to be used

Criteria to be satisfied

Balance between instructions & training

Usually departmental, or specific to product

Frequently changed

In details

LEVEL 4: SUPPORTING DOCUMENTS

Relates to all the forms, documents, records, labels, tickets, job cards, purchase orders, goods inwards notes, registers, logs, etc. that are used to support the levels above.

SUPPORT DOCUMENTATION

- 1. QUALITY PLAN**
- 2. CODES OF PRACTICE**
- 3. USER MANUAL**
- 4. TECHNICAL DOCUMENTATION**

ASSIGNMENT – ISO 9000

- Q 1. What is ISO 9000. Write about its principles, need and certification.
- Q 2. What are the benefits of ISO 9000 implementation.
- Q 3. Name eight quality management principles.
- Q 4. Explain quality management system documentation.
- Q 5. What is the need for quality manual ?
- Q 6. What are the requirements of ISO 9001:2000 standard.
- Q 7. Explain various levels of documentation in ISO 9001.

THANK YOU

QS 9000

QS 9000

- QS 9000 is a company level certification based on quality system requirements related **specifically to the automotive industry**. These standards were developed by the larger automotive companies including Ford, General Motors and DaimlerChrysler. This standard is obsolete and has been replaced by either ISO/TS 16949 or ISO 9001.

This certification was for organizations in the automotive supply chain.

QS 9000

- Organizations that wanted to become certified to the current version of QS9000 would need to complete an application, undergo a document review and certification audit. Once the certification was received, annual or regularly scheduled audits would be conducted to verify continued compliance to the standard.

QS 9000

- QS 9000 contains the full text of ISO 9001, which complements with other requirements of the automotive industry, in particular the requirements for the introduction of new products, product endorsement by customer, requirements for process capability and requirements for continuous improvement. Requirements of this standard shall comply with the various stages of each supplier to the automotive industry.

QS 9000 is divided into three sections:

- ISO 9001, including the requirements for the automotive industry
- Other requirements - system requirements defined by the “Big Three” for their own use
- Customer-specific requirements that are unique to each individual car manufacturers
- **Use of QS 9000 in practice:** Standard QS 9000 serves as a reference model for setting the basic management processes in the automotive industry. The introduction of standards helps to continuously improve product quality and customer satisfaction.

-

QS 9000

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QS 9000

- Standard QS 9000, like other technical standards defines a minimum standard, requires the following certification of established management system (established processes) in the organizations of automotive industry.
- The result is a certificate.
- The whole supply chain must then also be guided by the standard.
- The key requirements of QS 9000 are used by other methods in the field of quality, especially:
 - APQP (Advanced Product Quality Planning)
 - DOE (Design of Experiments)
 - FMEA (Failure Mode and Effect Analysis)
 - MSA (Measurement System Analysis)
 - PPAP (Production Part Approval Process)
 - QSA (Quality System Assessment)
 - SPC (Statistical Process Control)

Basic Responsibilities

- Know your job duties!
- Know your documentation!
- Do you job correctly!

Enter QS 9000

ISO

A tool for **any** type of business

Non-Specific:

Any Industry

Any Product

QS

A tool for doing business with:

Ford

GM

Chrysler

Specific to:

3 Companies

Automotive Focus

The Basics

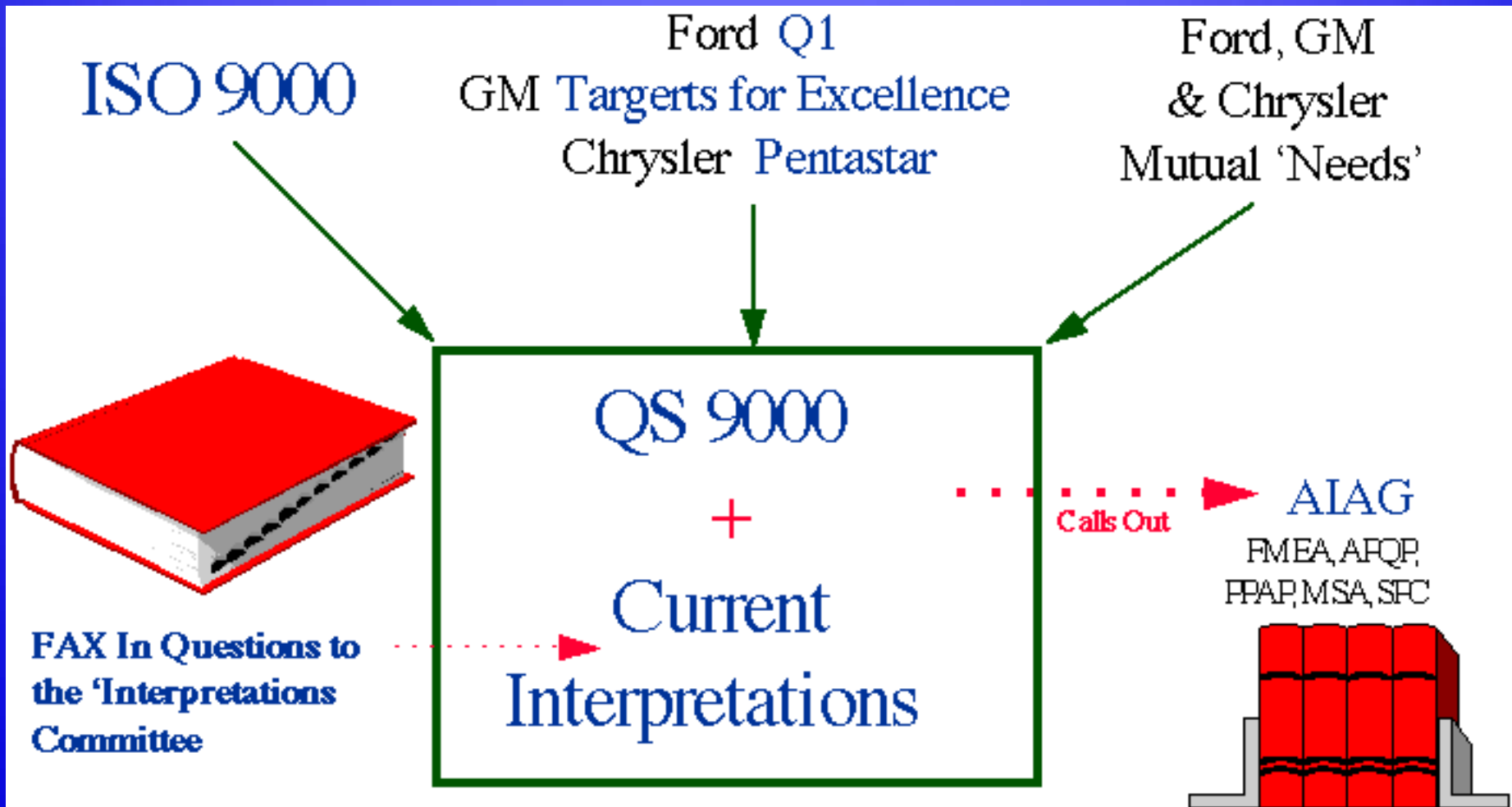
Say What You Do

This means document your systems so you will consistently do the job the same way every time. We must make sure we have appropriate documentation.

Do What You Say

This is what the auditors want to see. Objective evidence that what you say you are doing in your documentation is what you are doing in practice.

QS 9000 Documentation Origins



Motorola SPS Quality Policy

Quality is about passion.

Quality is about caring.

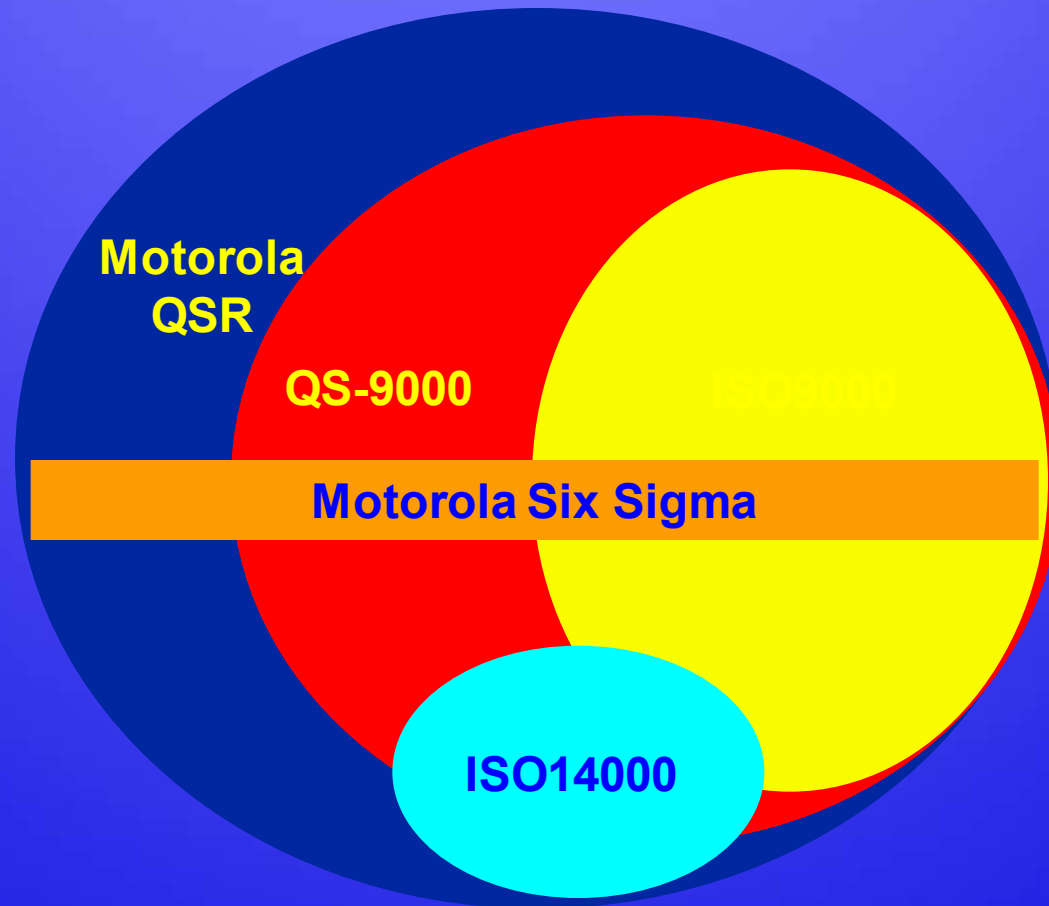
It is about executing every single detail of our jobs with such total care for the customer that our competitors appear amateur by comparison.

Quality is also about winning.

We must pursue quality in every thing we do, every day.

- Hector Ruiz

Quality Systems Inter-Relationships



Payback

- Companies minimize deficiencies in supply and support of products and services.
- Companies identify problem areas and address them quicker.
- Companies identify customer needs more accurately.
- Companies become more consistent in their product and services.

What is Documentation?

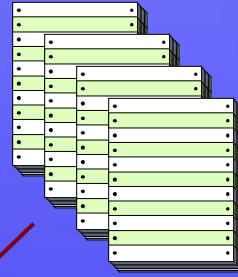
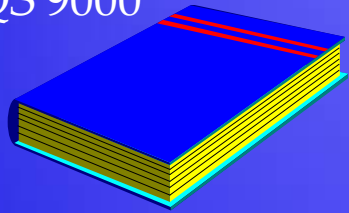
- Documentation is much talked about. There are different types. At Motorola, for example, there are 12M's. Sector has SOPs and maintains a Quality Systems Manual. There is process documentation in the manufacturing areas.
- Everyone uses documentation outside of work. If you buy something (like a clock), there are **instructions** in the box. That is documentation.
- **Think of documentation as instructions.** Documentation explains how to do things.
- The auditor's job is to make sure everyone is **'Following Instructions'**.

What is Controlled Documentation?

- A controlled document is typically one that is Revision sensitive - BUT - Not always!!
- If a controlled document is changed, a record of the change has to be made. This means we must have a History of All Changes.
- If a document is changed, people who use it must know about the change. This means there has to be a distribution list or other effective way to let everyone who uses it know the document has changed.
- Every employee must know how to check to see if documentation they are using is the most current version.

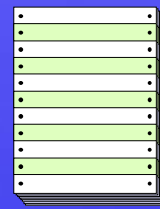
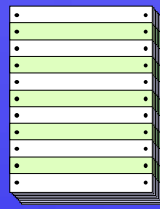
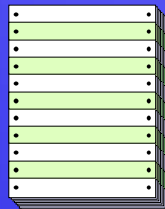
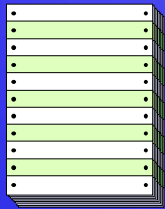
Quality System Requirements

QS 9000

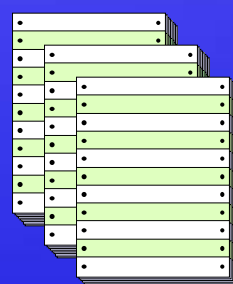
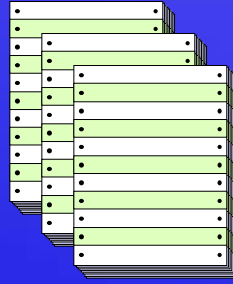
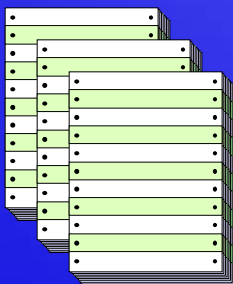


Quality System Manual

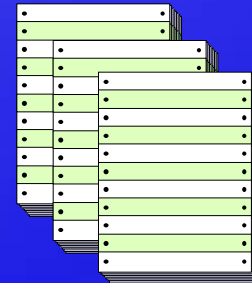
Level I Document



Level II Documentation - Quality System Procedures



Level III Documentation - Working Instructions



Control Plans
FMEAs
Review Meetings
Quality Records

Level IV

Note: Level 1 and Level 2 Documents are available on the intranet web at <http://wwcm.sps.mot.com>

List of Main QS Elements

4.1	Management Responsibility
4.2	Quality System
4.3	Contract Review
4.4	Design Control
4.5	Document and Data Control
4.6	Purchasing
4.7	Control of Customer-Supplied Product
4.8	Product Identification and Traceability
4.9	Process Control
4.10	Inspection and Testing
4.11	Control of Inspection, Measuring and Test Equipment
4.12	Inspection and Test Status
4.13	Control of Non-Conforming Product
4.14	Corrective and Preventive Action
4.15	Handling Storage Packaging Preservation and Delivery
4.16	Control of Quality Records
4.17	Internal Quality Audits
4.18	Training
4.19	Servicing
4.20	Statistical Techniques

Typical Types of Records

- Contract Review
- Purchasing
- Identification and Traceability
- Process Control
- Inspection and Test
- Control of Measurement and Test Equipment
- Non-conforming Product
- Corrective and Preventive Action
- Internal Quality Audits
- Training

Records Management Activities

- Management of Active records
- Records creation (forms)
- Design of records system
 - Retention schedule
 - Vital records protection
- Development of records procedures
 - Indexing
 - Filing
 - Access
 - Disposition

Preparation

- GAP Analysis and Document Mapping
- To prepare for the audit you should be reviewing your area for problems.
- Start at one corner of the room and sweep through it.
- Have a system to identify everything you have looked at.
- Be ready to identify and explain every piece of paper in your area whether on walls, in drawers or in open files.

Preparation 2

- Find and read your Job Description. Is it relevant?
- Ask yourself what specifications you are supposed to be using?
- Review all the questions in this presentation.
- If there are any questions you cannot answer, **FIND** the answer - ask someone who knows!
- If you find what you believe is a problem, notify the appropriate person.

An Example Area 'Element Responsibility' Chart

'Areas' go here. →

Area responsibilities come from Organization Charts.

ISO 9001 Element	Management	Quality Assurance	Materials	New Product Eng.	Frame Weld & Paint	Machine	Tank & Fender	Chrome	Paint	Assembly - Set-Up	Maintenance
4.1 Management Responsibility	U										
4.2 Quality System	A	A									
4.3 Contract Review											
4.4 Design Control											
4.5 Document & Data Control	X	A	A	X	A	U	A	U	A	A	A
4.6 Purchasing											
4.7 Control of Customer Supplied Product											
4.8 Product Identification and Traceability		A	A	X	A	X	X	U	A	A	
4.9 Process Control		A		X	A	U	U	U	A	A	A
4.10 Inspection & Testing		A		X	A	U	X	U	A	A	
4.11 Control of I, M&TE		A		X	A	X	X	U	A	A	
4.12 Inspection & Test Status		A			A	X	X	U	A		
4.13 Control of Nonconforming Product		A			A	U	U	U	A		
4.14 Corrective & Preventive Action	S	A									
4.15 Handling, Storage, Preservation & Delivery				X							
4.16 Quality Records	X	S	A	X	A	X	X	U	A	A	X
4.17 Internal Quality Audits	S	A									
4.18 Training	S										
4.19 Servicing											
4.20 Statistical Techniques		A		X							

Each area has certain QS 9000 elements it is responsible for complying with. Each should be listed and the departmental managers should know their responsible elements.

We can track each area's compliance with a matrix like this one. **Verification** and **validation** are by the use of **internal audits**.

One element every area will have to comply with is Element 4.16 'Quality Records'. Does each area manager know what quality records they have and are responsible for?

It is very important that this responsibility chart be presented during staff meetings **weekly** to ensure that there is **progress!**

X	Not Yet Determined as of this Report Print Date
S	Known Deficiencies - No Known Resolution Plan
B	Known Deficiencies - Resolution Behind Schedule
U	Resolution Plan - Unknown Status
A	Resolution Plan On Schedule
X	Area Appears Compliant (Not Verified thru Audit)
C	Area Compliant (Verified Through Audit)

Registration

- Motorola's registrar is LRQA.
- (Lloyd's Register Quality Assurance (LRQA) is a world leading, independent provider of Business Assurance services including management system certification, validation, verification and training to bespoke and international standards and schemes.
- Registration lasts for 3 years.
- Registration is NOT a 'one-shot' deal.
- Your company will be re-audited at least once a year.

Registration Audit

Registration requires regular audits by your Registrar. These are called Third Party audits.

Just as has been done in banks for years, auditing has reached every industry.

Whether twice a year or once a year, your company quality system has to be audited by the company which registers your company. LRQA is your Registrar.

What Is An Audit?

- An Audit is a check to ensure that what a business says it does is actually what it is doing.
- In ISO 9000 and QS 9000 an audit is meant to validate that a company 'Says what it does and Does what it says'.
- For the most part this is a verification and validation of written procedures, policies and related documentation.

What is an Auditor?

- An auditor is a person. Their job is to validate documentation. This means they look at documentation (instructions) and make sure people are following the documentation.
- Auditors go from company to company validating documentation.
- Auditors are just people who ask questions about how you do your job.

Auditors Are Not!!!

- Inquisitors
- Fault Finders
- Rock Throwers
- Avenging Angels (Biased For or Against)
- Dishonest
- Overactive

The Reason For Audits

- Everyone is familiar with the idea of audits. One place we are all aware of audits is in the banking industry. For years, the government has required banks to submit to periodic audits by government agencies and/or external companies who specialize in auditing. Few people want to put their money in a bank where there are no controls such as periodic audits. If there are no audits, you have no way of knowing if your bank is using your money well. If the bank is not 'using your money well' the bank could easily fail - then you could lose all of your money.

The Reason For Audits

- Audits in manufacturing industries are not new. Customer audits have been going on for years. But only recently has the idea of **third party** audits become reality. This is in large part due to the adoption in Europe of ISO 9000 and other international standards.

Reasons for Audits 2

- The intent of third party audits is to provide assurance that a company complies with a standard or specification.
- Many people say that third party audits will eliminate customer audits. This has not been the case up to now in part because customers still see the need to ensure compliance to their specific requirements. Even QS 9000, specific to Ford, GM and Chrysler suppliers, does not eliminate customer audits.

What Will The Auditors Do?

- The auditors will look at written procedures and policies (verification).
- The auditors will then look at and ask how people in the company do things. They will look to make sure each person is following written procedures and policies (this is **called validation**).
- They will look at records to ensure everyone is properly completing paperwork (examples would be process related documentation and SPC charts).
- They will look to make sure everyone is properly trained to do their job.

Who Will Be Audited?

- Absolutely **Everyone** whose job affects **quality** is **subject to the audit**.
- And the farther up the corporate tree you go, the more difficult the audit is. This is because as you go up the tree (eventually to the CEO), job duties and responsibilities increase.

Corporate Personnel

Plant Manager

Departmental managers

Supervisors

Engineers

Technical personnel

Associates

The Audit Team

- When you are visited by an auditor, he/she will **NOT** be alone. At the very minimum, there will be:

The Auditor

A **Company Escort** - This will be someone from within MOTOROLA who knows the area and the specification well. The escort will try to provide structure to the audit and will try to help out when he/she can.

The **Area Supervisor and/or Manager** - The area supervisor or other person directly responsible for the area will be present.

Types of Audits

- Internal Audit

An audit of internal systems and/or procedures. An internal audit is most often performed by people who directly work for the company. Many companies hire outside firms (see third party below) to perform the audits.

Types of Audits

- External Audit

 - Customer Audits

 - Customer audits are those where a customer (or a customer representative) performs the audit. A customer audit is not 'objective' because the customer is intimately involved with your company (the supplier to the customer). This involvement can BIAS the audit.

 - 'Third Party' Audits

 - Third party audits are like those you think of when you think of bank audits. Banks (and other financial institutions) must hire a company or person to audit their books and procedures. The company or person hired to do the audit cannot have an 'interest' in the business it is auditing. This is known as an 'Independent Audit'. Your registrar audit is a third party audit.

What Will Happen If...

- If an auditor finds a problem, s/he will let the person being audited know immediately that a possible problem may exist. In NO case will the auditor 'find a problem' and not discuss it with the auditee 'on the spot'. They always tell the auditee the suspected problem.
- If an auditor leaves your area and says nothing about a possible problem, you can be sure no problem(s) were found. Auditors do NOT report findings to management without discussing it with the personnel involved FIRST. There are no tricks. Nothing is 'hidden' until later.

Things to Know

- **Know what documentation affects YOU!**

You must know what documentation applies to your job. If you are not sure what documentation applies to you, ASK YOUR SUPERVISOR or TRAINER **before** the audit.

- You must **follow all documentation** that applies to you. If it says you do something a certain way, you must do it that way.
- You must **complete all forms**. If you are supposed to initial and date when you do something, the auditors will check to ensure you complete the form the way you are supposed to.
- **Know what training you have had**. If you do not know, ASK YOUR MANAGER **NOW! Don't wait until the audit!**

Things to Do

- **Listen** closely before answering any question(s). If you are not sure you understand the question, ask the auditor to repeat it.
- **Never answer a question you do not understand!**
- Never say “Sometimes I...”. **Be specific.**
- Always tell the Truth. Don't ever try to hide something. One lie could ruin the entire audit.
- Be patient. Wait for the auditor to ask a question.

Things NOT to Do

- If you do not know the answer to a question, tell the auditor that you do not know the answer.
- Do NOT try to answer a question for another person.
- Do NOT try to answer a question about another job.
- Do NOT try to hide from the auditor..

General Things To Know and Do

- **Auditors are NOT trying to test your memory.** If you have to look something up in your documentation, tell the auditor. The auditor will then tell you whether to look up the information or not.
- **Only answer the auditor's question.** Do NOT volunteer information. Do NOT try to 'help' the auditor with additional information.
- Answer with the shortest, simplest answer you can think of. If you can answer with a Yes or No, that's all you should do.
- **Don't try to explain things beyond the question asked.** The auditor will ask questions to help him/her understand. Your job is to only answer questions asked.
- **Do not tell stories or speculate** what 'may' happen.
- **Right NOW!!!** If there is any documentation which you are using that you think or know is not correct, contact your supervisor immediately!

Some Questions to Expect

- What is QS 9000?
- What is the quality policy?
- What does the quality policy mean to you?
- What documentation/specification(s) do you follow? Show it to me.
- How do you know you are using the most recent documentation?
- How do you know what to do? Tell me about your job and your duties.
- Do you ever have problems come up? How do you handle them?
- When you find nonconforming product, what do you do?
- What are your quality responsibilities?
- What are controlled documents?
- If your documentation says you should do something a specific way and someone else tells you to do it differently, what do you do?
- What do you do if your machine jams?

If you do not know the answer to any of these questions, talk to your supervisor SOON! DO NOT WAIT!

Supervisors Should Think About...

- **Work Instructions**

 - Does Every Job Have Relevant Work Instructions?

 - Are Work Instructions Controlled?

 - Is Each Signed & Dated?

 - Who is the Keeper of a Master List & Where is it Kept?

- **Hand Revisions**

 - Have Any Work Instructions, Visual Aids, or Other Process Documentation Been Updated By Hand?

 - If So, Are They Signed and Dated?

- **Equipment PMs**

 - Are All Equipment PMs Up To Date and to a Schedule?

- **Measurement & Test Equipment**

 - Is All Measurement and Test Equipment Calibrated and properly Labeled?

- **Defective Material**

 - Is Defective Material Identified and Segregated?

 - Is A Defective Material HOLD Area Identified?

 - Is DMR Material Dispositioned in a Timely Manner?

Last Things to Think About

- **Employee Training**

Do You Know the **Training Requirements Of Your Job** Position?

Is Each Employee **Trained**?

Where Are Training Records Kept?

Are Training Records Up To Date?

- **SPC**

Are People Keeping SPC Charts Appropriately Trained in SPC?

Are SPC Charts Current and Being Utilized?

Are Trends Identified and **is Corrective Action Taken**?

- **Work Areas**

Are Work Areas Clean and Orderly?

- **Baskets, Boxes, Racks, Shelves & Other Containers**

Is Each Properly Labeled (Identified)?

Are They Where They Are Supposed To Be?

Assignment

Q 1. What is QS 9000. Explain.

Q 2. What are the quality system requirements.

Q 3. Explain Audit, Auditor, reasons for audits.

Q 4. What are types of audits ?



ISO 14000



ISO

- ISO is the International Organization for Standardization.
- It is made up of national standards institutes from countries large and small, industrialized and developing, in all regions of the world.



ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

- **An EMS is defined by ISO as:**

“part of the overall management system, that includes organisational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving and maintaining the environmental policy’



ISO 14000

- ISO 14000 is primarily concerned with environmental management. This means what the organization does to eliminate harmful effects on the environment caused by its activities.



ISO 14000

- ISO 14000 is not a “green” label for products. ISO does not assess or audit quality or environmental management systems.
- The ISO 14000 standard is not a standard of objectives or results, but of procedures.
- When an organization has a management system certified to an ISO 14000 standard, this means that an independent auditor has checked that the process influencing the impact of the organization’s activities on the environment, conforms to the relevant standard’s requirements.



ISO 14000

- ISO 14000 is similar to ISO 9000 quality management in that both pertain to the process of how a product is produced, rather than to the product itself.
- As with ISO 9000, certification is performed by third-party organizations rather than being awarded by ISO directly



OBJECTIVE OF THE ISO 14000

- The major objective of the ISO 14000 series of norms is "to promote more effective and efficient environmental management in organizations and to provide useful and usable tools - ones that are cost effective, system-based, flexible and reflect the best organizations and the best organizational practices available for gathering, interpreting and communicating environmentally relevant information"



ROLE OF ISO 14000

- ISO 14000 was based on a voluntary approach to environmental regulation
- The series includes the ISO 14001 standard, which provides guidelines for the establishment or improvement of an EMS.
- As with ISO 9000, ISO 14000 acts both as an internal management tool and as a way of demonstrating a company's environmental commitment to its customers and clients.



ISO 14001

- ISO 14001, as with other ISO 14000 standards, is voluntary, with its main aim to assist companies in continually improving their environmental performance, whilst complying with any applicable legislation.
- Organisations are responsible for setting their own targets and performance measures, with the standard serving to assist them in meeting objectives and goals and the subsequent monitoring and measurement of these.
- This means that two organisations that have completely different measures and standards of environmental performance, can both comply with ISO 14001 requirements.



ISO 14001

- ISO 14001 is known as a generic management system standard, meaning that it is applicable to any size and type of organisation, product or service, in any sector of activity and can accommodate diverse socio-cultural and geographic conditions



BENEFITS

- ISO 14001 was developed primarily to assist companies' in reducing their environmental impact, but in addition to an improvement in environmental standards and performance, organisations can reap a number of economic benefits including higher conformance with legislative and regulatory requirements by utilising the ISO standard.
- Firstly by minimising the risk of regulatory and environmental liability fines and improving an organisation's efficiency, leading to a reduction in waste and consumption of resources, operating costs can be reduced.



BENEFITS

- Secondly, as an internationally recognised standard, businesses' operating in multiple locations across the globe can register as ISO 14001 compliant, eliminating the need for multiple registrations or certifications (Hutchens 2010).



BENEFITS

- Thirdly there has been a push in the last decade by consumers, for companies to adopt stricter environmental regulations, making the incorporation of ISO 14001 a greater necessity for the long term viability of businesses and providing them with a competitive advantage against companies that do not adopt the standard.
- This in turn can have a positive impact on a company's asset value and can lead to improved public perceptions of the business, placing them in a better position to operate in the international marketplace
- Finally it can serve to reduce trade barriers between registered businesses.



ISO 14001 CERTIFICATION

- Once a business has fully developed and implemented their ISO 14001 compliant environmental management system, they can choose to apply for certification (registration).
- Certification involves evaluation of the company's EMS system, including a comprehensive on-site audit, to determine whether it meets the ISO 14001 requirements.
- If the company conforms to the ISO standard it is issued with a certificate which is generally valid for a period of three years



ASSIGNMENT – ISO 14000

- Q 1. Explain EMS and ISO 14000.
- Q 2. What are the objective and role of ISO 14000.
- Q 3. What is ISO 14001. What are its benefits.
- Q 4. What is ISO 14001 certification.

