
SIGMA QUALITY SOLUTIONS • LLC

C-51

Incorporating NDAA Requirements into Your QMS through the Implementation of AS 6081

Agenda

- Why?
- The New Sandbox – ‘Trusted’
- Structure
- AS 9120 A
- AS 6081 Guidance
- Counterfeit Escapes
- The Customer Audit

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Why?

- **‘Debarred’**
  - **3 counterfeit sales to Air Force**
  - **Un-intentional**
  - **Debarred,**
  - **$$$ in legal fees and loss in revenue!**
  - **Re-instated**

Why?

- **‘Federal Prison’**
  - **Multiple counterfeit sales to Navy**
  - **Intentional!!!**
  - **Raided and Shutdown,**
  - **$$$ in Fines**
  - **Federal Prision**

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‘Trusted’

The name of the game is to be recognized as a:

‘TRUSTED’ Distributor.

‘Trusted’

‘TRUSTED’ Distributor.

- NDAA – Sec. 818 requires parts no longer in production or not available in stock from authorized dealers be procured from Trusted sources.
- AS 6081 registration will be a means for both Independent & Franchise Distributors to be:

‘TRUSTED’

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- **Structure**
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Structure

- Basis:
  - H.R.1540: National Defense Authorization Act for Fiscal Year 2012 (Sec. 818. Detection and Avoidance of Counterfeit Electronic Parts).
- Required:
  - Registration to AS 9120 &/or ISO 9001
- Enhancement:
  - AS 6081 Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition – Distributors

Structure

- Basis:
  - AS 9120 or ISO 9001
- Enhancement or Supplement:
  - The requirements of AS 6081 are folded into AS 9120 or ISO 9001 in the same manner as for example:
    - Conformance to ASA 100 (FAA Circular AC-00-56).
    - Conformance to JESD625A
    - Conformance to JESD31C
    - Conformance to ANSI/ESD – S20.20 - 2007

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AS 9120

- You want to Play?
- You Need Revision ‘A’!!!

AS 9120

Revision 'A' (2009)

Deadline to Upgrade:
July 1, 2012

AS 9120

- Records 7 Years Minimum
- Objectives: OTD; Quality; Customer Returns & Customer Complaints.
- Clause 7.1- No longer Excluded
  - Planning (w/Risk)
  - Work Transfer
  - Configuration
- Clause Sampling Inspection
- Process Auditing (Internal)

AS 9120

- Planning – Quality Plan
  - Objectives & Product Requirements
  - Establish Processes & Resources
  - Processes For Quality Verification
  - Records
  - Configuration Control

AS 9120

- Configuration Management
  - a) configuration management planning,
  - b) configuration identification,
  - c) change control,
  - d) configuration status accounting, and
  - e) configuration audit.

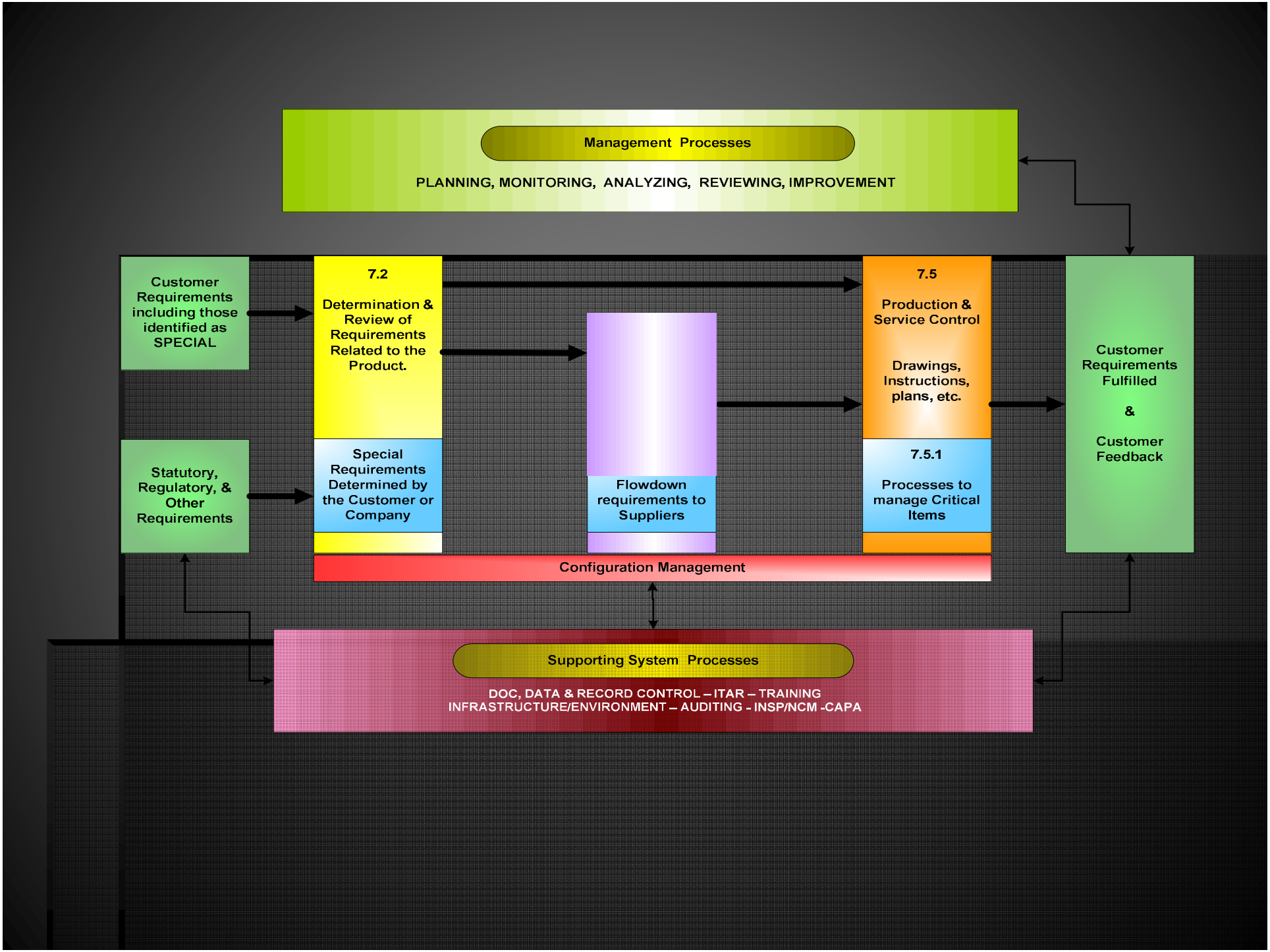
AS 9120

- 7.1.4 Work Transfer
  - (Temporary or Permanent)

  - a) Plant to Plant,
  - b) Plant to Subcontractor,
  - c) Subcontractor to Subcontractor.

AS 9120

- Primary Processes
  - Management
  - Planning
  - Configuration Management
  - Customer & Contracts
  - Purchasing
  - Operations
  - Quality


Management Processes
PLANNING, MONITORING, ANALYZING, REVIEWING, IMPROVEMENT
Customer Requirements including those identified as SPECIAL
Statutory, Regulatory, & Other Requirements
7.2
Determination & Review of Requirements Related to the Product.
Special Requirements Determined by the Customer or Company
Flowdown requirements to Suppliers
7.5
Production & Service Control
Drawings, Instructions, plans, etc.
7.5.1
Processes to manage Critical Items
Customer Requirements Fulfilled
&
Customer Feedback
Configuration Management
Supporting System Processes
DOC, DATA & RECORD CONTROL – ITAR – TRAINING
INFRASTRUCTURE/ENVIRONMENT – AUDITING - INSP/NCM -CAPA

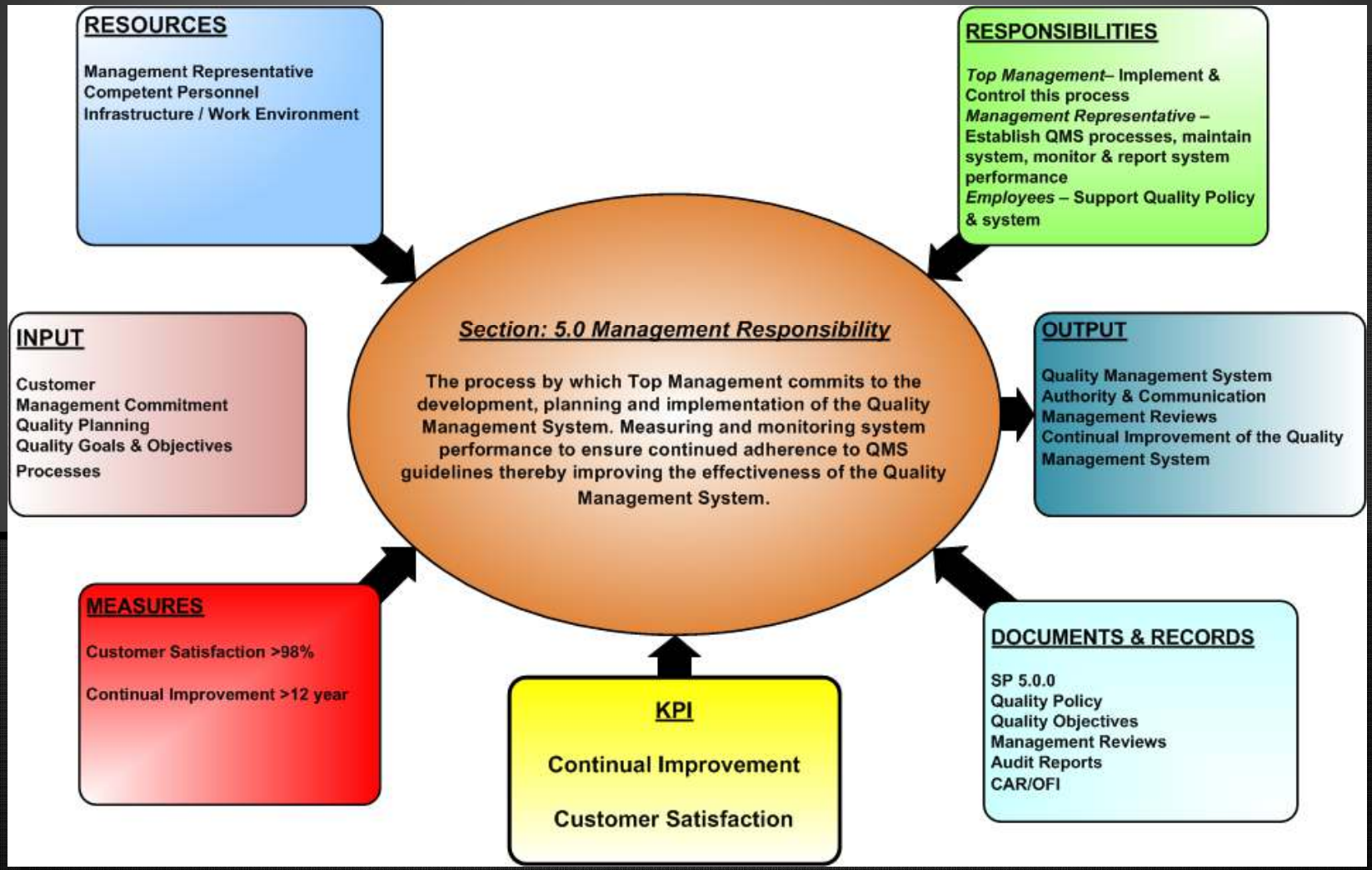
AS 9120

- Primary Processes (COPs)
  - Flow Chart
  - Process Flow Diagrams
  - PFMEA
  - Control Plan
  - PEAR (Process Effectiveness Assessment Report)

AS 9120

- Process Flow Diagrams
  - Activity
  - Input
  - Output
  - Resources
  - Responsibility
  - Documents & Records
  - Effectiveness

AS 9120


RESOURCES
Management Representative
Competent Personnel
Infrastructure / Work Environment
RESPONSIBILITIES
Top Management– Implement & Control this process
Management Representative – Establish QMS processes, maintain system, monitor & report system performance
Employees – Support Quality Policy & system
INPUT
Customer
Management Commitment
Quality Planning
Quality Goals & Objectives
Processes
Section: 5.0 Management Responsibility
The process by which Top Management commits to the development, planning and implementation of the Quality Management System. Measuring and monitoring system performance to ensure continued adherence to QMS guidelines thereby improving the effectiveness of the Quality Management System.
OUTPUT
Quality Management System
Authority & Communication
Management Reviews
Continual Improvement of the Quality Management System
MEASURES
Customer Satisfaction >98%
Continual Improvement >12 year
KPI
Continual Improvement
Customer Satisfaction
DOCUMENTS & RECORDS
SP 5.0.0
Quality Policy
Quality Objectives
Management Reviews
Audit Reports
CAR/OFI

AS 9120

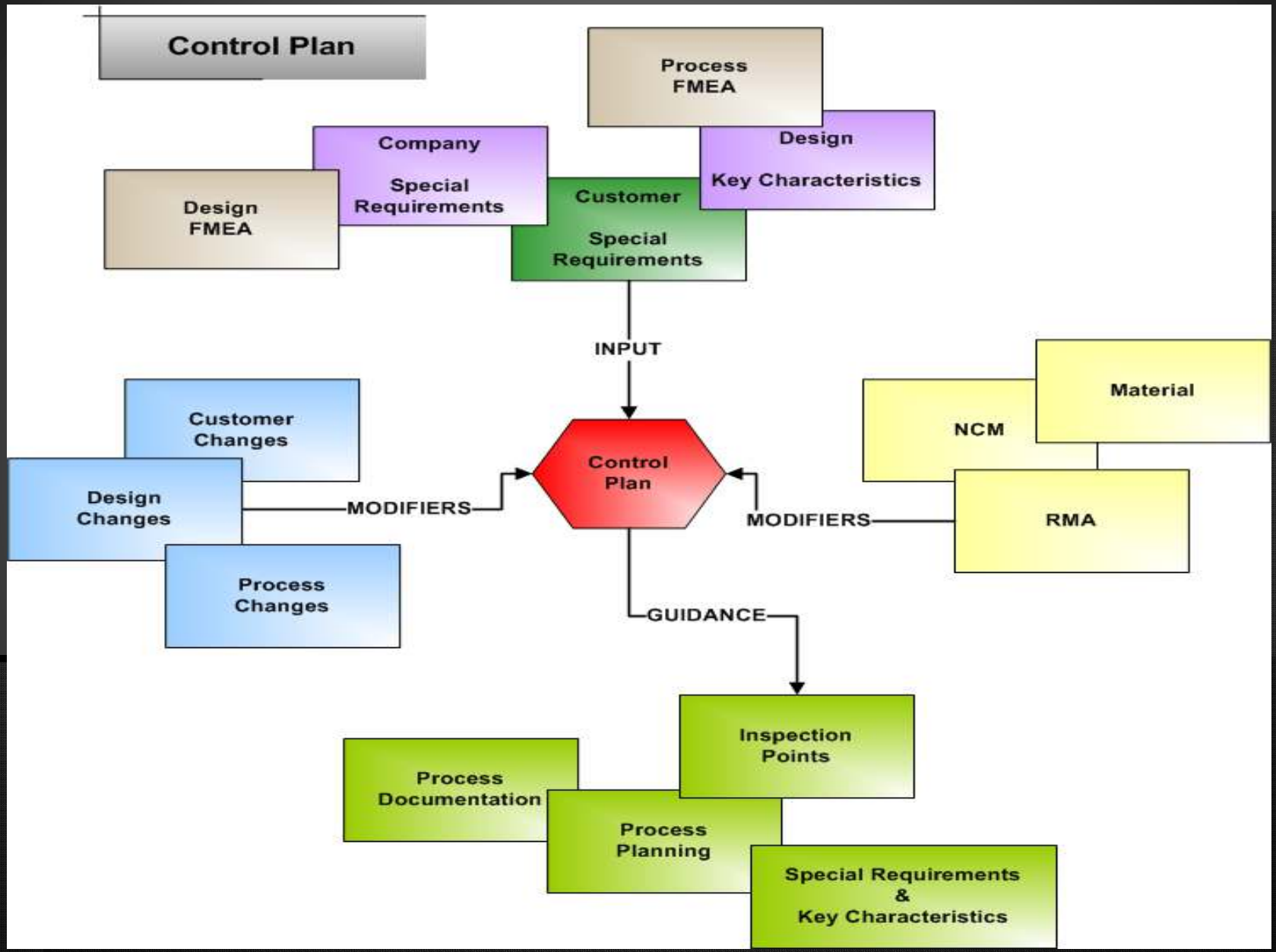
Risk FMEA (Modified)

Potential Failure	*Potential Effect(s)*	*Sev*	*Potential Cause(s)*	*Occ*	*RPN*	*Mitigation*	*Responsibility*	*Sev*	*Occ*	*RPN*
		1 to 10		1 to 10	1 to 100			1 to 10	1 to 10	1 to 100

AS 9120

- Control Plan

Characteristics					Class.	Methods							
#	Process - Operation Description	Machine, Device, Jig, Tools for Mfg.	Product	Process	CC´s & SC´s	Product / Process Spec. / Tol.	Evaluation Measurement Technique	Sample		Responsibility	Control Method		Reaction Plan
								Size	Frequency				
1	Material	Visual	Supplier's Identification / Quantity / Volume	Receiving	Minor		Visual	Sampling Scheme	Per lot	Receiving		Incoming Inspection Report	
		Caliper	Dimensional Characteristics	Incoming Inspection	Major	Drawing	Dimensional	Sampling Scheme	Per lot	QC		Incoming Inspection Report	
		H&T Meter	Preservation	Production	Minor		Visual	Monitor	Daily	Production	Monitor	Log	


Control Plan
Process FMEA
Company Special Requirements
Design Key Characteristics
Design FMEA
Customer Special Requirements
INPUT
Material
NCM
Customer Changes
Design Changes
MODIFIERS
Control Plan
MODIFIERS
RMA
Process Changes
GUIDANCE
Inspection Points
Process Documentation
Process Planning
Special Requirements & Key Characteristics

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AS 6081

Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition –

Distributors

AS 6081

Standardizes Distributor's Processes to:

- Procure parts from reliable sources,
- Assess and mitigate risk of distributing fraudulent/counterfeit parts,
- Control suspect or confirmed fraudulent/counterfeit parts,
- Report suspect and confirmed fraudulent/counterfeit parts to other potential users and Authority Having Jurisdiction.

AS 6081

4.2 Counterfeit Parts Control Plan

- Integrated into Existing QMS

- Includes: Risk Mitigation, Disposition & Reporting.

AS 6081

Supplements the requirements of:

- AS 9120

  or

- ISO 9001

AS 6081

Terms

Suspect Part

- May have been misrepresented by the supplier or manufacturer and may meet the definition of fraudulent part or counterfeit part

Fraudulent Part

- Any suspect part misrepresented to the Customer as meeting the Customer's requirements

Counterfeit Part

- Confirmed to be a copy, imitation, or substitute that has been represented, identified, or marked as genuine

AS 6081

4.1 QMS

Registration Required To:

- AS 9120
- ISO 9001

Counterfeit Parts Mitigation Policy

AS 6081

4.2 Counterfeit Parts Control Plan

- 1. Customer & Contract Review
- 2. Purchasing
- 3. Purchase Order Requirements
- 4. Supply Chain Traceability
- 5. Preservation of Product
- 6. Verification of Purchased Product

AS 6081

4.2 Counterfeit Parts Control Plan

- 7. Control of NCP
- 8. Material Control
- 9. Reporting
- 10. Training
- 11. Internal Audits

AS 6081

- ***4.2.1. Customer & Contract Review***
  - The review, agreement, and execution of contractual requirements to minimize the risk.
  - Notify Customer if commitments cannot be satisfied
  - Disclose the source of supply (by company name and location), is or is not authorized (franchised) for the item(s) being quoted and is or is not providing full manufacturer's warranty on the quoted material;
  - Provide a product warranty for one (1) year,

AS 6081

- ***4.2.1. Customer & Contract Review***
  - Provide the Customer a quote based on the best results and practices of supplier approval and source selection.
  - Issue a revised written quotation to the Customer, if at any time the source of supply changes

AS 6081

- ***4.2.2. Purchasing (7.4)***
- ***Supplier Approval & Source Selection***
  - Maintain an ASL, with risk of receiving fraudulent/counterfeit parts.
  - Do NOT use Suppliers in the Excluded Parties List System (EPLS).
  - Procure only new and authentic parts directly from OCMs or Authorized Suppliers or from Suppliers who obtain such parts exclusively from the OCM or their Authorized Suppliers with Supply Chain Traceability when available.
  - If sourced from Authorized Distribution, the Supplier must provide evidence of authorization and is or is not providing full manufacturer's warranty.

AS 6081

- ***4.2.3. Purchase Order Requirements***
  - All requirements of “Section 4 Requirements” shall apply when this standard is contractually.
  - Requirements to manage risk shall be determined prior to entering into a contractual agreement with the Supplier.
  - PO will include Customer Flow-downs.
  - The PO shall define the product as quoted and require the Supplier to meet the requirements exactly.

AS 6081

- ***4.2.4. Supply Chain Traceability***
  - Retention of records providing supply chain traceability to the OCM or Aftermarket Manufacturer, wherever such traceability exists.
  - Supply chain traceability records shall be provided with each shipment and shall be retained for a minimum of five (5) years.
  - If traceability is incomplete or unavailable, Customer approval is required in advance of shipment.

AS 6081

- ***4.2.5. Preservation of Product (7.5.5)***
  - Preservation shall include identification, handling, packaging, storage, and protection & provisions for:
    - Cleaning,
    - Prevention, detection, and removal of foreign objects,
    - Special handling for sensitive products (e.g. electrostatic discharge, moisture and temperature controls),
    - Marking and labeling including safety warnings,
    - Shelf life control and stock rotation, and
    - Special handling for hazardous materials.
    - Approved parts shall be physically segregated from non-approved parts.

AS 6081

- ***4.2.6. Verification of Purchased Product***
  - Purchased Product testing and analysis shall be performed by an independent, third party test laboratory and/or in-house by the organization.
  - ***Meet one of the following:***
    - Accreditation to ISO/IEC 17025,
    - Participation in the DLA Land and Maritime Laboratory Suitability List,
    - Documented approval by the Customer through on-site audit,

AS 6081

- ***4.2.6. Verification of Purchased Product***
  - Test Levels
  - Test/Inspection Sampling Plan
  - Minimum Fraudulent/Counterfeit Part Detection Methods
  - Control of Suspect, Fraudulent, or Confirmed Counterfeit Parts ***(8.3)***
  - Returned Product ***(8.3)***
  - Records/Summary Reports of Inspection and Test Results .

AS 6081

- ***4.2.6. Verification of Purchased Product*** ***(7.4.3)***
  - Minimum Fraudulent/Counterfeit Part Detection Methods:
    - Documentation and Packaging Inspection
    - **External Visual Inspection**
    - **Inspection for Remarking and Resurfacing**
    - Radiological (X-Ray) Inspection
    - Lead Finish Evaluation
    - Delid/Decapsulation Physical Analysis

AS 6081

- ***4.2.7. Control of NCP (8.3)***
  - Product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery
  - Report ‘Escapes’ per se. 4.2.9.
  - Control of NCP is the same as AS-9120 sec. 8.3.

AS 6081

- ***4.2.8. Material Control (7.5)***
  - Do not alter, obliterate or redact any information from the OCM's labeling or part marking relevant to supply chain traceability.
  - Control excess and nonconforming parts to prevent them from entering the supply chain under fraudulent circumstances.
  - Quarantine in 'Bond' suspect or confirmed fraudulent/counterfeit parts to preclude their use or reentry into the supply chain.

AS 6081

- ***4.2.9. Reporting (7.4)***
  - All occurrences of suspect, fraudulent and confirmed counterfeit parts be reported, within 60 days of identification, to internal organizations, and to customers, applicable Government authorities, Government reporting organizations (e.g., GIDEP or equivalent), industry supported reporting programs (e.g., ERAI or equivalent), and Authority Having Jurisdiction.

AS 6081

- ***4.2.10. Training (6.2)***
  - Each department shall be trained as appropriate to their function, in the avoidance, detection, mitigation and disposition of suspect, fraudulent &/or counterfeit parts.
  - Personnel involved with direct handling shall be trained in techniques for detection.
  - Personnel with responsibility for detection by technology specialists in the specific equipment and test method.

AS 6081

- ***4.2.11. Internal Audits (8.2.2)***
  - The requirements of AS 6081 are assessed as a part of the AS9120 or ISO 9001 QMS.

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Escapes

See 4.2.7. Control of NCP (8.3)

- Escape: fraudulent/counterfeit electronic part(s) entering the aerospace supply chain.
- Notification & Recall Process
- All occurrences of suspect, fraudulent and confirmed counterfeit parts be reported per section 4.2.9.

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The Customer Audit

The Dreaded Customer Audit -

There are NO Rules!!

The Customer Audit

Simple Steps to Prepare

- 1. They use their PO Requirements.
- 2. They use their product & documentation.
- 3. They want to meet & interview their contacts.
- 4. They bring their current problems for resolution.
- 5. Buyer - Schedule
- 6. Engineer – Drawings & Specs.
- 7. QC – Adherence to their flow-downs (SQR’s)

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QUESTIONS