

MEGGITT PROCEDURE

Prevention of Counterfeit Parts and Suspect Unapproved Parts

Company confidential

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REVISION RECORD SHEET

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1	01 Dec 2015	Initial Issue	Approved
2	29 May 2020	General revision incorporating recent industry changes and IAQG guidance. In addition procedure title revised.	Approved

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1.0 PURPOSE

This Meggitt Procedure defines the requirements of the Prevention of Counterfeit Parts and Suspect Unapproved Parts to accomplish the following:

- The detection of Suspect Unapproved Parts
- Avoidance of counterfeit material, and fraudulent material/parts, from entering into products designed and manufactured in Meggitt businesses.
- Ensuring Meggitt Sites are protected from the supply and use of counterfeit and fraudulent material/parts.
- Minimise the potential for warranty and replacement costs
- Protect Meggitt and its customers from prosecution or trafficking of counterfeit parts.
- Ensure parts are procured from trusted and approved sources.
- Take appropriate steps to make Meggitt designs difficult to counterfeit or fraudulently reproduce.
- Comply with Defense Federal Acquisition Regulation Supplement (DFARS) Detection and Avoidance of Counterfeit Electronic parts for Meggitt Division's performing U.S. Government contracts under which electronic components are delivered. See appendix.

Examples of potential counterfeit and fraudulent materials are shown below, however this is not an exhaustive list:

- Electronic Parts
- Raw Materials
- Seals
- Bearings

Note: Potentially all parts could be counterfeit or fraudulent, including new manufactured parts, refurbished parts, cosmetically touched up parts and parts with unauthorised structural changes such as welding and lapping.

2.0 SCOPE

This Meggitt Procedure is applicable to all Meggitt Sites and applies to all materials, products and processes.

3.0 RESPONSIBILITIES AND AUTHORITY

The Site General Manager of each Meggitt location is responsible for providing the resources and manpower to meet the needs of this procedure.

Group, Division and Site Procurement shall ensure the intent of this procedure is used when selecting suppliers and for maintaining existing suppliers, Site Procurement and Quality functions shall, in addition, flow these requirements to their supply chain.

Contracts shall ensure that any customer requirements regarding Suspect Unapproved Parts, Counterfeit & Fraudulent Material Avoidance are flowed to the necessary areas.

Design Engineering shall ensure product design is accomplished to identify all product requirements to enable outsourcing of supply, and identify obsolescence issues.

Project and Programme Management shall ensure any issues for counterfeit and fraudulent parts are identified and risk mitigated through the PLM and NPI processes, in accordance with MPPM-1 Programme Lifecycle Management.

Goods Receipt shall ensure that products / materials received are fully traceable, conform to the Meggitt Purchase Order and any products / materials that are not traceable and/or meet the requirements of the Meggitt Purchase order will be processed per MQA-10 Control of Nonconforming Outputs.

Site Quality shall ensure that all Suspect Unapproved Parts are suitably dispositioned and are processed per MQA-10 Control of Nonconforming Outputs. In addition, internal audits shall address this procedure per MQA-24 Internal Audit.

4.0 DEFINITIONS AND ABBREVIATIONS

For the purposes of this document, the definitions and abbreviations given in the MGU-1 Abbreviations and Definitions Dictionary apply.

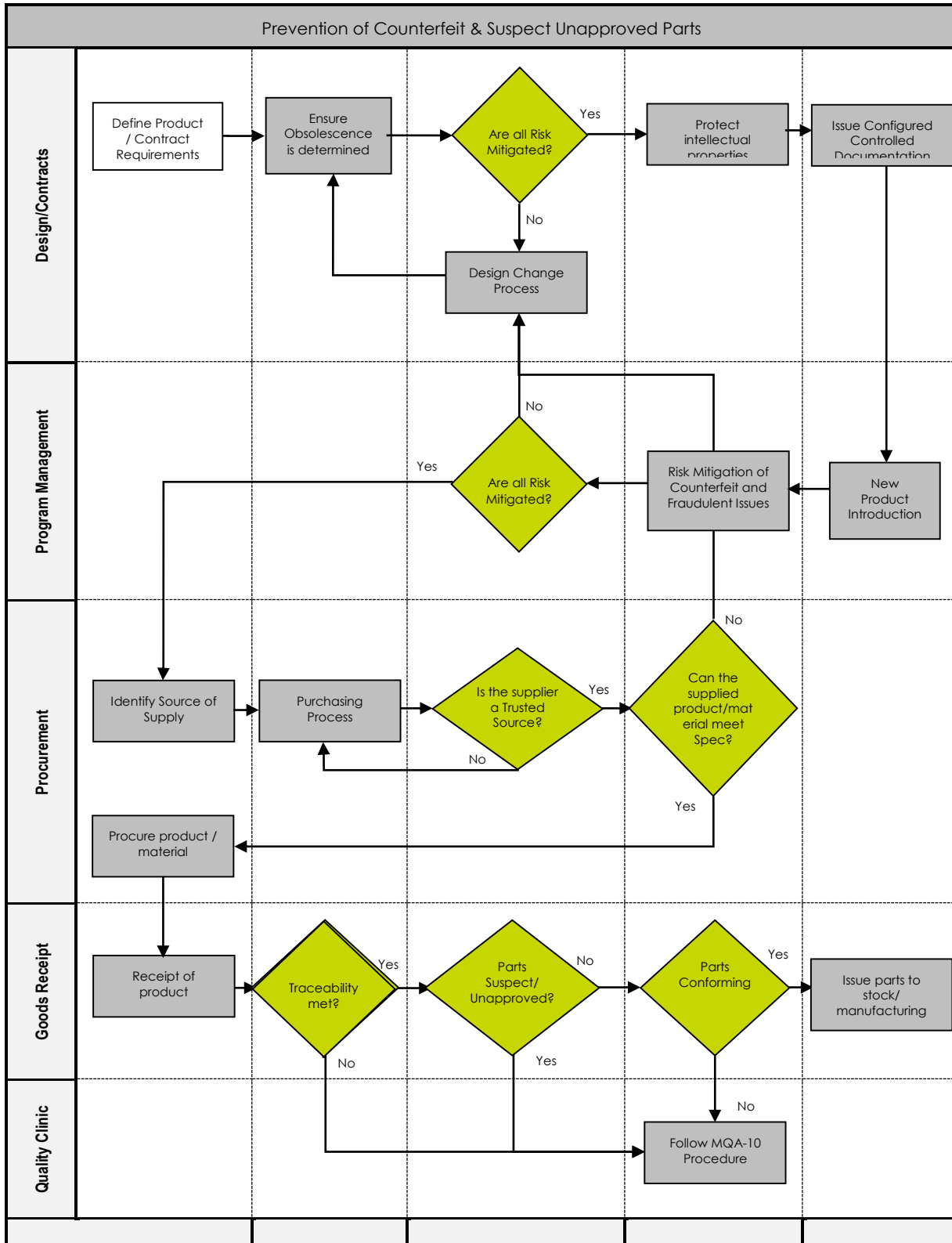
Note:

For additional definitions, reference should be made to ISO9000, Quality Management Systems – Fundamentals and Vocabulary.

5.0 PROCESS INPUTS, OUTPUTS, AND MEASURES (TURTLE DIAGRAM)

N/A

6.0 PROCESS FLOW DIAGRAM (PFD)



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7.0 PROCEDURE

7.1 General

Under no circumstances shall suspect unapproved/counterfeit parts or counterfeit parts knowingly be used in any product supplied by any Meggitt business.

Through this procedure Meggitt site shall ensure that parts have sufficient risk mitigation to ensure no products are delivered to a customer with the potential of containing Counterfeit and Fraudulent material/parts and/or unapproved parts. This shall also ensure:

- Meggitt Sites with US government contracts complying with Department of Defense Acquisition Regulation System 48 CFR Parts 202, 231, 244, 246, and 252.
- Meggitt Sites with FAR 145 approval conforming to FAA Advisory Circular (AC) 21-29 for detecting & reporting Suspected Unapproved Parts.
- The requirements within Aerospace Standard AS 5553 and Technical Publication IEC/TS 62668 as reference documents to the level of risk required for electronic/avionic parts (AS 5553 being the preferential Standard), and the Aerospace Standard AS 6174 for materials.

Note: Although both of these documents cover electronic parts their principles can be leveraged for all potential counterfeit or fraudulent material/parts.

Sites shall ensure material/parts are procured from trusted sources, each source shall be an approved supplier to the requirements of the Meggitt Group Business Management System (GBMS), ideally the Original Equipment or Component Manufacturer (OCM/OEM), where this cannot be achieved then suitable risk mitigation shall be implemented if permitted by the Customer contract.

7.2 Contracts

All Contracts shall be reviewed for any specific customer requirements regarding Prevention of Counterfeit Parts and Suspect Unapproved Parts requirements. This review should include, but not limited to:

- Ensuring common understanding of the Customers' requirements for Suspect Unapproved Parts / Counterfeit requirement.
- Understand the Customer's strategy on obsolescence management.
- All Customer requirements are flowed down internally & through the supply chain.

7.3 Product Design

- 7.3.1 All product shall have its Intellectual Property protected as a minimum with the company logo and patent marking as applicable. In addition, all Meggitt businesses shall ensure that specifications, design documents, test plans, etc. are similarly marked and controlled through Configuration Management.
- 7.3.2 Product designs and subsequent changes to design shall incorporate the requirements of Meggitt MPPM-01 Programme Life Cycle Management.
- 7.3.3 Provision shall be made to ensure that all equipment is marked in accordance with site design procedures and incorporates necessary regulatory and customer requirements to provide full traceability, where necessary other identification such as 2D part marking or the use of radio frequency ID tags shall be used.
- 7.3.4 The design and programme planning activities shall assess the long term availability of authentic and/or Commercial off the Shelf (COTS) parts and the required sources to allow production of products, and assist the procurement process to evaluate suitable alternatives. The design shall be assessed for redesign should a risk be identified.
- 7.3.5 During this phase, obsolescence of material shall be considered as part of design reviews and the risk mitigated.

- 7.3.6 Divisional/site engineering teams shall review obsolescence risks and establish mitigation plans (including last-time buys, and component substitution) to reduce exposure to obsolete material which may be at risk of counterfeit manufacture.

7.4 Purchasing

- 7.4.1 Meggitt business shall utilise sources identified by Group Procurement from the register of acceptable and unacceptable electronic suppliers adopting IDEA-STD-1010 "Acceptability of Electronic Components Distributed in the Open Market" in conjunction with AS 5553 and IEC/TS 62668.
- 7.4.2 Procurement teams shall incorporate a requirement into Purchase Orders or contracts for the supplier to supply documentation which proves the provenance of material being purchased (AS 6174). MPRC-10 Meggitt Group Supplier Quality Requirements shall be part of the supplier requirements flow-down.

7.5 Supplier Control

- 7.5.1 The site shall manage, assess and monitor suppliers per MPRC-3 Supplier Management and MPRC-4 Supplier Surveillance.
- 7.5.2 By order of precedence, parts may be purchased from the following sources of supply:
- Original component manufacturer or certified/licensed manufacturer
 - Franchised distributor
 - Original equipment manufacturer / Contract manufacturer / Aftermarket manufacturer
 - Non Franchised or Independent distributor/ broker with good quality, reputation and procedures (if permitted by Customer contract)
- 7.5.3 Independent distributors should be used only after a risk assessment has been conducted; including consideration of alternate material, redesign, schedule adjustments and a reasonable search for material from franchised/authorised sources, and approval has been obtained from the Site Quality responsible person and the Site Director.
- 7.5.4 The selection, assessment, audit and approval of suppliers and distributors shall include checks that the supplier has adequate documented processes to prevent the purchase, acceptance, use, and delivery of suspect unapproved parts or counterfeit and fraudulent material.

7.6 Product Assurance

- 7.6.1 Each Meggitt site shall ensure the necessary controls are in place to effectively monitor receipt of material and include trained Meggitt personnel that can identify the risk associated with the product at the site. All relevant personnel shall be trained in the awareness and prevention of counterfeit product to include: avoidance, mitigation, detection, and disposition of counterfeit parts/material. Incoming receiving and/or manufacturing inspectors of electronic components should be trained in the use of Independent Distributors of Electronic Association (IDEA)-STD-1010 and certification to IDEA-ICE-3000 is recommended.

Detection and verification processes shall be based on the assessed probability of receiving a counterfeit part; the probability that an inspection or test will detect a counterfeit part; and the known potential negative consequences of a counterfeit part being installed, including human safety or mission success.

Detection and verification processes may include, as appropriate:

- Documentation and Packaging Inspection
- Visual Inspection
- Inspection for Evidence of Remarking or Resurfacing
- X-Ray Inspection
- X-Ray Fluorescence
- Destructive Physical Analysis
- Thermal Cycle Testing
- Burn-In
- Hermeticity Verification
- Material / component performance test
- Testing of Final Product

The above list are examples of tests that can be performed, the various tests may be mandatory depending on the site procedure.

Note: Component tests/verification by approved subcontractors and/or external sources is acceptable when these capabilities do not exist within the site.

- 7.6.2 Other functions within the site shall be trained in the awareness and prevention of counterfeit and fraudulent material/parts identified within site training plans, for example engineering functions shall be trained to avoid the use of potential problem products (products that have a high counterfeit risk) and procurement teams shall be trained to ensure understanding that the correct source of supply shall be used.
- 7.6.3 Sites shall pre-emptively check required parts against a database of known "at risk" components (IHS/ERA1 or similar), this shall be carried out by engineering, procurement and/or quality functions during the design process, changes to design and where obsolescence is identified.
- 7.6.4 Should unapproved parts and/or counterfeit parts be suspected in Meggitt, quality assurance shall be immediately informed and all affected materials shall be quarantined and processed in accordance with MQA-10 Control of Nonconforming Outputs. If confirmed by site quality then MOPS-12 Meggitt Product Performance Issues Escalation shall be followed.
- 7.6.5 After assessment of the suspected Counterfeit parts is completed, a report shall be submitted to Group Engineering & Group Quality. Disposition should be in accordance with customer and regulatory requirements, but in no event should disposition be a return to the supplier or incorporation into the customer's deliverables, unless the suspect material has been confirmed not to be counterfeit or fraudulent. Example material may be returned to the supplier in such circumstances as to allow the supplier to conduct internal investigations. If submission to the customer or regulatory agency is not required, the default disposition should be destruction. Destruction of parts must await disposition from the enforcement agency.
- 7.6.6 After assessment of Suspect Unapproved Parts is completed, a report shall be submitted to site Quality. Disposition should be in accordance with customer and regulatory requirements, but in no event should disposition be a return to the supplier or incorporation into the customer's deliverables, unless the suspect material has been confirmed not unapproved parts. If the products are determined as Counterfeit section 7.6.5 shall be followed.
- 7.6.7 Any supplier that supplies Meggitt with confirmed counterfeit or fraudulent or unapproved product shall be removed from the approved supplier list in compliance with MPRC-3.

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7.7 Training

All necessary departments that may encounter Counterfeit or Suspect Unapproved Parts shall receive awareness training (MTR-17) every 2 years.

Below are some of the areas that may encounter Counterfeit or Suspect Unapproved Parts, but not limited to:

- Goods Inwards
- Assembly
- Inspection

8.0 RECORDS

The Control of Meggitt Procedures shall ensure records are maintained per the MQA-20 Control of Documented Information Procedure.

9.0 IMPORTANT NOTES

This process is subject to all applicable Trade Compliance Regulations

10.0 REFERENCED DOCUMENTS

- AS/EN/JISQ 9100/9110/9120 Quality Management Systems – Requirements for Aviation, Space, and Defense Organisations
- MGU-1 Abbreviations and Definitions Dictionary
- MOPS-12 Meggitt Product Performance Issues escalation
- MPPM-01 Programme Lifecycle Management
- MPRC-3 Supplier Management
- MPRC-10 Meggitt Group Supplier Requirements
- MQA-10 Control of Nonconforming Outputs
- MQA-20 Control of Documented Information
- MQA-24 Internal Audit
- MTR-17 Counterfeit & Fraudulent Material Avoidance
- 48 CFR Parts 202, 231, 244, 246, and 252 Defense Federal Acquisition Regulation Supplement (DFARS): Detection and Avoidance of Counterfeit Electronic Parts (DFARS Case 2012-D-055); Final Rule
- FAA Advisory Circulatory (AC) 21-29
- IAQG SCMH 3.5.2
- Independent Distributors of Electronic Association IDEA-STD-1010: Acceptability of Electronic Components
- IEC 62668-1: Process management for avionics - Counterfeit prevention - Part 1: Avoiding the use of counterfeit, fraudulent and recycled electronic components
- SAE AS 5553: Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition
- SAE AS 6081: Fraudulent/Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition - Distributors
- SAE AS 6174: Counterfeit Material, Assuring Acquisition of Authentic and Conforming Material.