AEROSPACE STANDARD

AS6462	REV. A

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Superseding AS6462

(R) AS5553A, Fraudulent/Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition Verification Criteria

RATIONALE

This verification criterion was created in response to the increasing use of AS5553A (Aerospace Standard; Fraudulent/Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition) by industry due to the increasing volume and potential risk of procuring and using counterfeit electronic parts. As the industry has adopted AS5553A and claim that processes and procedures are in compliance with the Counterfeit Electronic Parts Standard, a standard set of conformity assessment compliance requirements is established to validate compliance and justify issuance of certification to AS5553A.

FOREWORD

To assure compliance to AS5553A requirements, a set of standard assessment criteria must be utilized to evaluate and establish uniform certification. This document standardizes compliance criteria for AS5553A requirements.

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http://www.sae.org/technical/standards/AS6462A

1. SCOPE

1.1 Purpose

This set of criteria shall be utilized by accredited Certification Bodies (CBs) to establish compliance, and grant certification to AS5553A, Aerospace Standard; Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition.

1.2 Application

This document is intended for use during certification audits to the requirements of AS5553A. It may be used by all contracting organizations that procure electronics parts, whether such parts are procured directly or integrated into electronic assemblies or equipment as guidance for evaluating compliance to AS5553A or in preparation for a certification audit or internal evaluation.

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

The requirements of this document are intended to supplement the requirements of a higher level quality standard (e.g., AS9100) and other quality management system documents. They are not intended to stand alone, supersede, or cancel requirements found in other quality management system documents, requirements imposed by contracting authorities, or applicable laws and regulations unless an authorized exemption/variance has been obtained.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

AS5553A Fraudulent/Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition

2.2 ANSI Publications

Available from American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036, Tel: 212-642-4900, www.ansi.org.

ANSI\EIA-STD-4899A-2009 Standard for Preparing an Electronic Components Management Plan

2.3 Commercial Publications

IDEA-STD-1010 Acceptability of Electronic Components Distributed in the Open Market

2.4 ISO Publications

Available from American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036, Tel: 212-642-4900, www.ansi.org.

ISO 9000 Quality Management Systems - Fundamentals and Vocabulary

2.5 Other Publications

IEC TS62239 Process management for avionics – Preparation of an electronic components management plan

3. TERMS AND DEFINITIONS

For the purposes of this document, the terms and definitions stated in ISO 9000, AS5553A and the following shall apply:

3.1 Related Definitions

SUBJECT MATTER EXPERT (SME): The Subject Matter Expert (SME) is an expert in the area of counterfeit parts and is a key member of the audit team. (Note: An SME can also be the Lead Assessor, if qualified.)

4. REQUIREMENTS

Table 1 shall be used by the Certification Body to establish compliance to AS5553A. The table contains the AS5553A requirement clause, criteria for compliance, record of compliance, and a column for notes.

The MOE identified in Table 1 are for guidance only in establishing the methodology for conducting the audit; as such, the MOE may be modified, as deemed appropriate by the auditor(s). The MOEs are included to structure the audit at the depth necessary to verify compliance to the AS5553A, Section 4 mandatory requirements.

5. NOTES

5.1 A change bar (l) located in the left margin is for the convenience of the user in locating areas where technical revisions, not editorial changes, have been made to the previous issue of this document. An (R) symbol to the left of the document title indicates a complete revision of the document, including technical revisions. Change bars and (R) are not used in original publications, nor in documents that contain editorial changes only.

TABLE 1 - VERIFICATION CRITERIA

SAE AS5553 Clause	Requirement	Comply ?	Criteria For Compliance	Method of Evaluation (MOE)	Record of Compliance	Notes
4/4.1	**REQUIREMENTS** **Fraudulent/Counterfeit EEE Parts Control Plan** The organization **shall**(1) develop and implement a fraudulent/counterfeit EEE parts control plan that documents its processes used for risk mitigation, disposition, and reporting of suspect or confirmed fraudulent/counterfeit EEE parts and or assemblies containing such parts. The control plan **shall**(2) include the processes described in 4.1.1 through 4.1.10.		(1) The plan is a Released Document with configuration control. This plan can be a standalone plan or a plan that points to existing released documents/processes. (2) Sections within document for Parts Availability, Purchasing, Purchasing Information, Verification of purchased product, In Process Investigation, Material Control, and Reporting.	MOE - Review the plan and verify it includes all of the processes of 4.1.1 through 4.1.10.	Record the plan title, number, release date and revision. Record SME rationale for acceptability and comments. Record other documented evidence/artifact.	
4.1.1	**Personnel Training** Relevant personnel, including management of programs, projects, procurement, quality assurance, inspection, receiving, manufacturing and engineering activities **shall**(1) be trained as appropriate to their function, in the awareness, avoidance, detection, mitigation and disposition of suspect/fraudulent/ counterfeit EEE parts.		(1) Training of relevant personnel is provided and includes applicable processes appropriate to their function.	MOE - Review the Organization's training program to determine what type of training is being provided for each different task; specifically evaluate training of program management, projects, procurement, quality assurance, inspection, receiving, manufacturing, and engineering personnel to verify the training is appropriate to their function and that the training covers awareness, avoidance, detection, mitigation and disposition of suspect/fraudulent/ counterfeit EEE parts.	Record the Training program reviewed. Record if they have appropriate training records. Record rational for acceptability and comments.	

SAE AS5553 Clause	Requirement	Comply ?	Criteria For Compliance	Method of Evaluation (MOE)	Record of Compliance	Notes
4.1.2	**Parts Availability** The processes **shall**(1) maximize availability of authentic, originally designed and/or qualified parts throughout the product's life cycle, including management of parts obsolescence. Information and guidance for ensuring parts availability is provided in Appendix A.		(1) These requirements must: 1. Verify Counterfeit Electronic Parts Control Plan (CEPCP) reference to new or existing obsolescence management processes. 2. Verify CEPCP reference to new or existing part management (selection) requirements. 3. SME documents and concurs that all processes are technically acceptable. NOTE: Certification to ANSI/EIA-STD-4899A-2009 and/or IEC TS62239 is evidence of compliance to AS5553 requirement 4.1.2.	MOE- Review the procedures engineering uses to develop the parts list to determine what criteria is being used for part selection. Verify criteria exists to confirm that parts selected are not obsolete, or about to become obsolete in the near term. Review procurement procedures to determine if parts are being purchased from authorized sources to minimize the risk that the parts provided will not be authentic. Review the Organization's procedures for obsolete part management; in particular what actions are taken if a part has become or is about to become obsolete.	Record document title, number(s), release date and revision Record rational for acceptability and comments Record other documented evidence/artifact	
4.1.3	**Purchasing Process** The processes:		See below	See below	See below	
4.1.3a	**shall**(1) Document the assessments criteria and assess potential sources of supply (including electronic parts, assembly, and equipment suppliers) to determine the risk of receiving fraudulent/counterfeit EEE parts. Maintain records for those suppliers which have met the criteria. Guidance: Appendix B.		(1) A documented and controlled source of supply assessment process exists and includes criteria to determine risk of receiving fraudulent/counterfeit EEE parts. Sources of supply are assessed to the criteria and records maintained.	MOE - Determine how an assessment of potential sources of supply is performed. Ensure that the criteria includes an evaluation to determine the risk of receiving fraudulent/ counterfeit parts. SME agrees that risk criteria is acceptable. Review assessment results.	Record the process document number. Record assessment reviewed during audit. Record rational for acceptability and comments.	

SAE AS5553 Clause	Requirement	Comply ?	Criteria For Compliance	Method of Evaluation (MOE)	Record of Compliance	Notes
4.1.3b	**shall**[1] Specify a preference to procure directly from OCMs or authorized suppliers who are identified by requirements [a] above. If it is disclosed that the source of supply is not authorized for the part(s) being quoted, these procurements **shall**[2] be subject to the same requirements as those procured from a nonauthorized supplier. NOTE: Some Authorized Suppliers will provide other services which are not authorized by an OCM (e.g., independent distribution).		(1) Preferred procurement process is to procure directly from OCMs or OCM-authorized suppliers. (2) Requirements for nonauthorized suppliers shall apply if the parts cannot be purchased from an authorized supplier. Authorized suppliers must be authorized by the OCM to provide the part.	MOE - Review the purchasing process to determine if there is a preference to procure from OCM or OCM-authorized suppliers. Verify the procurement process requires OCM or OCM-authorized supplier sources be exhausted. If a non-authorized source was used, examine the records to validate that process for non-authorized procurements were followed.	Document Purchase process document reviewed. Document records reviewed to support non-authorized procurement.	
4.1.3c	**shall**[1] Assure that approved/ongoing sources of supply are maintaining effective processes for mitigating the risks of supplying fraudulent/ counterfeit EEE parts. Guidance: Appendix B.		(1) Documented and controlled processes for appropriate supply chain monitoring and objective evidence assessment. Objective evidence that all applicable CPCP requirements have been flowed down throughout the supply chain.	MOE-Review the methodology the Organization uses to confirm that his sources of supply are maintaining effective processes for counterfeit part risk mitigation. What methods are used; 1) on-site audits, 2) no known issues with parts previously provided, 3) review of supplier risk mitigation procedures, 4) review of supplier inspection and test data.	Supplier evidence via physical audit assessment and/or test data assessment Record rational for acceptability and comments.	
4.1.3d	**shall**[1] Require a documented risk assessment and risk mitigation plan, specific to the intended application, for each procurement other than from an OCM or authorized supplier.		(1) When not purchasing from the OCM or OCM authorized supplier, controlled processes must be documented to assess application specific risk. Must have a documented risk mitigation plan appropriate to the identified risk. The highest risk application shall be the basis for the risk assessment. Evidence of risk mitigation plan executed.	MOE-Review the process to ensure an application specific risk assessment is performed when procuring from non-authorized supplier. Review a procurement from a non-OCM authorized supplier and evaluate the application specific risk assessment. Assure that an application specific mitigation plan has been applied.	Documented and controlled application risk mitigation plan or assessment. Record rational for acceptability and comments. SME verifies process and records an example of a risk assessment for evidence. Record SME rationale for acceptability and comments.	

SAE AS5553 Clause	Requirement	Comply ?	Criteria For Compliance	Method of Evaluation (MOE)	Record of Compliance	Notes
4.1.4	**Purchasing Information** The documented process **shall**[1] specify contract/purchase order requirements to minimize the risk of being provided fraudulent/counterfeit EEE parts and at a minimum.		(1) Requirements to minimize fraudulent/counterfeit parts are specified in the contract/purchase order.	MOE - Review the procedure and ensure that it requires flow-down of requirements on the contract/purchase order. Review a sample of purchase orders and verify the contractual require-ments for counterfeit avoidance are invoked in the purchase order and are appropriate for the level of risk involved.	Record Process number reviewed. Record the Purchase order(s) reviewed.	
4.1.4a	**require**[1] Supply chain traceability to the OCM or aftermarket manufacturer that identifies the name and location of all of the supply chain intermediaries from the part manufacturer to the direct source of the product for the seller. If this supply chain traceability is unavailable or the documentation is suspected of being falsified, a documented risk assessment **is**[2] required.		(1) Process procedures shall specify the requirements for supply chain traceability to the OCM or aftermarket manufacturer, which provide for the identification of all suppliers in the supply chain. (2) If supply chain traceability is not available or if the documentation is suspected of being falsified, the risk assessment requirements established in the CFCP shall apply.	MOE - Verify procedure requires flow-down of supply chain traceability in the purchase order. Review a receiving inspection record package for a part and verify compliance to the supply chain traceability requirements. Verify procedure requires risk assessment if traceability is not available or documentation may be suspect.	Record purchase order number, date and supplier information. Record rational for acceptability and comments.	
4.1.4b	**require**[1] Specify flow down of applicable requirements of this document to applicable contractors and their sub-contractors. In the event that one or more supply chain intermediaries do not have a fraudulent/counterfeit part control plan compliant to this document, a risk analysis **shall**[2] be required for every application of the part. Guidance: Appendix D.		(1) Evidence of applicable requirements is flowed down to subcontractor or sub-tier component integrators/supplier(s)/contract manufacturer. (2) Evidence of risk analysis, if one or more supply chain intermediaries do not have a counterfeit part control plan compliant to AS5553.	MOE- Verify procedure requires flow-down of applicable requirements in the purchase order. Review a sample of purchase orders placed with contractors to verify the applicable require-ments of AS5553 were flowed-down. Also verify that the purchase order requires flow-down of requirements from the contractor to their sub-contractors. Verify a risk analysis was performed when required.	Record document title, number(s), release date and revision. Record the purchase order number, date and part ordered Record other documented evidence/artifact.	

SAE AS5553 Clause	Requirement	Comply ?	Criteria For Compliance	Method of Evaluation (MOE)	Record of Compliance	Notes
4.1.4c	**require**[1] Specify that disclosure is required, in writing, at the time of each individual quotation whether or not the source of supply is authorized (franchised) for the part(s) being quoted and whether or not is providing full manufacturer's warranty on the quoted part(s). Guidance: Appendix D.		(1) Organization response to Customer quotation and identifies source of supply, including whether the source is authorized (franchised) or not, and addresses part warranty.	MOE - Select a Customers quotation and determine if it includes the name and address of the source of the part. Determine if the source is authorized (franchised) to provide the part and determine if the order includes manufacturer's warranty provisions and that information is included on the quotation.	Record the purchase order number, date and part ordered and the name of the franchised distributor for the part.	
4.1.5	**Verification of Purchased/Returned Part(s)** The documented processes:		See below.	See below.	See below.	
4.1.5a	**shall ensure**[1] Detection of suspect or confirmed fraudulent/counterfeit EEE parts prior to formal part acceptance. The rigor of the verification process **shall**[2] be commensurate with product risk. Guidance: Appendix E.		(1)(2) Risk Mitigation Plan shall identify what specific inspections and testing are required for each type of part being purchased which shall be based on the level of risk involved.	MOE - Review the inspection and test records to determine if they document compliance to specified requirements from the risk assessment, including pass/fail criteria and correct sample size used. Verify all inspections and testing determined by the risk mitigation plan were performed, completed and passed prior to acceptance.	Record procedure numbers, revisions and dates reviewed. Risk assessment, corresponding test and inspection results reviewed.	
4.1.5b	**shall ensure**[1] The returns process specifies inspection to validate the authenticity of returned part(s). Guidance: Appendix E/F.		(1) Process exists to handle returned product and includes inspection to validate returned part authenticity.	MOE - Review the returned product process. If a returned transaction has occurred review the data for compliance and adequacy.	Document the process used for returning known good product to a Supplier and results of transactions reviewed.	